



MONMOUTHSHIRE COUNTY COUNCIL.

---

PUBLIC HEALTH  
REPORT  
FOR THE YEAR 1923.

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D. ROCYN JONES,

*C.B.E., M.B., D.P.H.,*

County Medical Officer.

THE COUNTY HALL,  
NEWPORT, MON.  
27th AUGUST, 1924.





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# **REVIEW**

OF THE

## **GENERAL SANITARY CONDITIONS**

OF THE

### **COUNTY OF MONMOUTH**

**FOR THE YEAR 1923.**

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#### **SCOPE OF THE REPORT.**

Under the Sanitary Officers Order, 1922, County Medical Officers of Health have been relieved of the obligation to include in their Annual Reports a digest of Reports made by Medical Officers of Health for the various Urban and Rural Districts within the County.

The Annual Reports for the year 1923, of the District Medical Officers of Health are the third of the series of " Ordinary " Reports. Reports of a full and detailed character, known as " Survey " Reports being required by the Ministry of Health at intervals of not less than 5 years, the Annual Reports for 1919 and 1920 constituting the first of the " Survey " Reports.

The County Annual Report has for the year 1923, been arranged in accordance with the requirements of the Minister of Health as set out in a Circular dated 7th January, 1924.

#### **GENERAL STATISTICS.**

Area (acres) 345,048.

Population (1921 Census) 358,436.

Do. (Estimated 1923) 371,100.

Number of structurally separate dwellings occupied (1921), 66,925.

Number of private families (1921), 75,898.

Rateable value, £1,575,035.

Sum represented by a penny rate, £6,562 12s. 11d.

## VITAL STATISTICS.

**BIRTHS:**—The total number of births registered in the Administrative County during 1923, was 8,737, made up as follows:—

	Legitimate		Illegitimate		Total		Grand Total
	Male	Female	Male	Female	Male	Female	
Urban Districts ...	3896	3699	124	108	4020	3807	7,827
Rural Districts ...	416	452	20	22	436	474	910
Total ... ..	4312	4151	144	130	4456	4281	8,737

In 1922, there were 8,805 births; in 1921, 10,312 births; in 1920, 10,779 births; in 1919, 8,487 births; in 1918, 8,948 births; in 1917, 8,402 births; in 1916, 8,848 births; in 1915, 10,194 births; and in 1914, 9,455 births. The birth rate for 1923 is 23·5 per 1,000 persons living. In 1922, the rate was 23·8; in 1921, 28·3; in 1920, 29·2; in 1919, 22·9; in 1918, 24·8; in 1917, 23·1; in 1916, 25·7; in 1915, 28·59; in 1914, 30·2.

For the Urban Districts of the County the birth rate was 24·2 per 1,000 for 1923, and for the Rural Districts 19·2, compared with 24·6 and 18·8 respectively for 1922, and 29·5 and 20·4 for 1921.

There is a slight decrease in the birth rate as compared with that of last year.

The number of births of illegitimate children was 274, which gives a rate of 31·4 per 1,000 of the total births and ·74 per 1,000 of population. Last year the number was 303, equal to 34·4 per 1,000 births and ·8 per 1,000 population. For the year 1921, the figures were 329, equal to 31·9 per 1,000 births, and ·9 per 1,000 population.

The birth rate for England and Wales is 19·7.

**DEATHS:**—The total number of deaths registered in the Administrative County, as shown in the Registrar-General's table, was 3,860, as compared with 4,238 in 1922, 4,107 in 1921, 4,379 in 1920, 4,171 in 1919, 4,943 in 1918, 3,822 in 1917, 4,979 in 1916, 5,063 in 1915, and 4,356 in 1914.

The general death rate, calculated upon the estimated population of 371,100 works out at 10·4 per 1,000 living. In 1922 the rate was 11·4; in 1921, 11·3; in 1920, 11·9; in 1919, 11·7; in 1918, 15·3; in 1917, 11·7; in 1916, 12·9; in 1915, 15·3; and in 1914, 12·8. For the Urban Districts the rate for 1923, was 10·2, and for the Rural Districts, 11·5.

The death rate for the year is the lowest on record, being no less than ·9 below the previous record rate.

The death rate for England and Wales is 11·6



## CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY.

Causes of Death.	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and up-wards.
All Causes ... ..	3860	638	197	169	188	209	497	835	1127
Enteric Fever ... ..	4	...	...	...	2	1	1	...	...
Small Pox ... ..	...	...	...	...	...	...	...	...	...
Measles ... ..	152	35	71	35	10	1	...	...	...
Scarlet Fever ... ..	4	...	1	2	...	...	1	...	...
Whooping Cough ... ..	81	42	29	9	1	...	...	...	...
Diphtheria ... ..	34	...	4	15	14	1	...	...	...
Influenza ... ..	66	6	1	2	7	3	8	22	17
Encephalitis Lethargica ... ..	5	...	...	...	2	1	1	1	...
Meningococcal Meningitis ... ..	2	1	...	1	...	...	...	...	...
Tuberculosis of the Respiratory System ..	242	4	...	2	9	63	115	45	4
Other Tuberculous Diseases ... ..	79	7	2	11	23	13	19	4	...
Cancer, Malignant Disease ... ..	310	...	...	...	1	2	27	148	132
Rheumatic Fever ... ..	40	...	...	1	15	12	7	4	1
Diabetes ... ..	34	...	...	...	3	1	8	14	8
Cerebral Hæmorrhage, etc. ... ..	231	...	...	...	1	1	5	85	139
Heart Disease ... ..	403	...	...	1	9	18	42	135	198
Arterio-sclerosis ... ..	74	...	...	...	...	...	...	15	59
Bronchitis ... ..	253	36	10	5	2	1	15	50	134
Pneumonia (all forms) ... ..	290	71	40	37	12	11	31	54	34
Other Respiratory Diseases ... ..	45	...	4	6	2	3	7	13	10
Ulcer of Stomach or Duodenum ... ..	30	...	...	...	...	3	14	8	5
Diarrhœa, etc. ... ..	62	39	3	2	3	1	2	6	6
Appendicitis and Typhlitis ... ..	19	...	...	...	8	2	8	...	1
Cirrhosis of Liver ... ..	16	...	...	...	...	...	1	10	5
Acute and Chronic Nephritis ... ..	81	...	...	3	5	5	14	27	27
Puerperal Sepsis ... ..	9	...	...	...	...	...	8	1	...
Parturition, apart from Puerperal Fever ... ..	29	...	...	...	...	6	23	...	...
Congenital Debility, etc. ... ..	290	278	5	3	3	...	...	1	...
Violence, apart from Suicide ... ..	218	6	6	19	21	31	50	50	35
Suicide ... ..	25	...	...	...	...	2	10	8	5
Other Defined Diseases ... ..	720	113	17	14	34	27	80	128	307
Causes ill-defined or unknown... ..	12	...	4	1	1	...	...	6	...

With the exception of the big increase in the number of deaths from Measles, the reports of the District Medical Officers of Health do not show that there was any unusual or excessiv mortality during the year. On the

other hand it is pleasing to record marked decreases in the figures for Influenza, Bronchitis and Pneumonia.

**INFANTILE MORTALITY:**—The total number of deaths under one year of age throughout the Administrative County was 638; 590 in the Urban Districts, and 48 in the Rural Districts.

The rate per 1,000 births was 73, which is 10·4 lower than last year's rate.

In the Urban Districts the rate was 75·4 per 1,000 births, and in the Rural Districts 52·7 per 1,000 births.

In 1922 the Infantile mortality rate was 83·4, in 1921, 91·5; in 1920, 87·9; in 1919, 88·0; in 1918, 97·6; in 1917, 84·3; in 1916, 88·4; in 1915, 128·5; in 1914, 106; in 1913, 115; in 1912, 105; in 1911, 149; in 1910, 112; in 1909, 104; in 1908, 142 per 1,000 births.

The rate for England and Wales is 69.

The Infantile Mortality Rate has again fallen appreciably from the previous year's figure, and is the lowest recorded for the County. It is again above the rate for England and Wales, but it is still around the comparatively low mark which has been general since the County Maternity and Child Welfare Scheme came into existence. The average rate for the 25 years, 1891-1915, is 137·4. The average for the eight years, 1916-1923, is 86·8.

The number of deaths of illegitimate children under one year of age was 27, or 3·09 per 1,000 of all births, and 98·5 per 1,000 of illegitimate births. Last year the number of deaths was 45, or 5·1 per 1,000 of all births, and 148·5 per 1,000 of illegitimate births.

The measures used within the County for purposes of reduction of Infantile Mortality are fully dealt with in the Report upon Maternity and Child Welfare for the year 1923, which has already been published and presented to the Council.

Number of deaths occurring during certain age periods in children under one year of age:—

	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month	1—3 months	3—6 months	6—9 months	9—12 months	Total under 1 year
Urban Districts	175	38	32	11	256	80	54	87	99	576
Rural Districts	16	5	2	7	30	6	5	4	6	51
	191	43	34	18	286	86	59	91	105	627

N.B.—The figures in the foregoing table were supplied by the District Medical Officers of Health.



## CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR OF AGE.

Causes of Death.	No. of Deaths.			Rate per 1000 Births—Admini- strative County.
	Urban Districts.	Rural Districts.	Administrative County.	
Infectious Diseases ...	72	5	77	8.8
Diarrhoeal Diseases ...	37	2	39	4.5
Wasting Diseases ...	256	22	278	31.8
Respiratory Diseases ...	100	7	107	12.2
Tubercular Diseases ...	7	4	11	1.3
Other Causes ...	118	8	126	14.4
Totals ...	590	48	638	73.0

**MATERNAL MORTALITY:**—The number of women dying in, or in consequence of childbirth during the year was 38, 9 from Puerperal Fever, and 29 from other causes. This is equal to a rate of .43 per hundred births.

**NOTIFIABLE DISEASES.**

The following is a summary of the weekly notifications received during the year from the Local Medical Officers, arranged under the respective headings for each Urban and Rural District:—

DISTRICTS	Estimated Population, 1923 for estimating Notification rate	Smallpox	Scarlet Fever.	Diphtheria.	Enteric Fever.	Pneumonia.	Pulmonary Tuberculosis	Other Tubercular Diseases.	Erysipelas.	Puerperal Fever.	Cerebro Spinal Fever.	Acute Polymyelitis.	Encephalitis Lethargica.	Ophthalmia Neonatorum.	Dysentery.	Malaria.	Polio-Encephalitis	Chicken Pox
<b>URBAN.</b>																		
Abercarn . . .	20,990	1	57	2	...	4	... 12	... 1	...	2	...	...	1	...	...	...	...	8
Abergavenny (Borough)	9,090	...	20	6	...	...	12	7	6	...	...	...	...	...	...	...	...	...
Abersychan . . .	28,410	...	26	34	1	1	12	25	6	1	...	...	...	7	1	3	...	...
Abertillery . . .	39,960	1	95	64	8	36	47	4	9	...	...	...	...	...	...	...	...	...
Bedwas and Machen	9,060	...	20	16	...	35	47	7	1	1	...	...	...	5	...	2	...	19
Bedwellty . . .	32,790	...	71	29	...	3	39	33	10	1	...	...	...	2	...	...	...	105
Blaenavon . . .	12,960	...	7	5	...	2	8	2	...	...	...	...	...	1	...	...	...	2
Caerleon . . .	2,307	...	3	1	...	1	3	...	...	...	...	1	...	...	...	...	...	...
Chepstow . . .	5,073	...	4	11	3	1	2	1	...	...	...	...	...	...	...	...	...	6
Ebbw Vale . . .	36,830	...	117	23	5	16	82	33	19	8	...	...	...	4	...	...	...	59
Llanfrechfa Upper	4,876	...	3	3	...	1	6	6	1	...	...	...	1	...	...	...	...	3
Llantarnam . . .	7,724	...	2	2	...	6	1	1	2	...	...	...	...	...	...	...	...	...
Monmouth (Borough)	5,110	...	14	1	1	...	5	...	...	...	...	...	...	2	...	...	...	14
Mynyddislwyn . . .	15,530	...	34	17	1	...	17	5	1	...	...	...	...	...	...	1	...	18
Nantyglo and Blaina	16,990	...	16	...	6	140	13	3	10	1	...	...	2	17	...	...	...	28
Panteg . . .	11,360	...	10	4	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Pontypool . . .	7,280	...	11	7	...	...	1	...	...	...	...	...	...	...	...	...	...	35
Rhymney . . .	12,230	2	21	34	1	...	30	26	4	...	...	1	...	...	...	1	...	23
Risca . . .	17,540	4	9	46	2	...	13	4	...	1	...	...	...	5	...	...	1	25
Tredegarr . . .	26,230	...	56	30	2	38	67	30	17	2	...	1	...	...	...	...	...	...
Usk . . .	1,460	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	323,800	8	596	335	31	285	406	184	77	17	...	3	4	43	1	7	1	399
<b>RURAL.</b>																		
Abergavenny . . .	9,302	...	6	1	4	1	3	3	3	...	...	...	1	...	...	...	...	8
Chepstow . . .	8,804	...	12	10	2	1	3	...	...	...	...	...	1	...	...	...	...	6
Magor . . .	5,560	...	2	4	...	2	5	1	...	...	...	...	...	1	...	...	...	1
Monmouth . . .	6,564	...	9	12	...	...	3	...	1	...	...	...	...	...	...	...	...	8
Pontypool . . .	5,310	...	...	4	...	1	6	...	...	...	...	...	...	...	...	...	...	...
St. Mellons . . .	11,760	...	18	3	...	2	12	3	1	1	...	...	...	...	...	...	...	13
Totals	47,300	...	47	34	6	7	32	7	5	2	...	...	2	1	...	...	...	36
Grand Totals	371,100	8	643	369	37	292	438	191	82	19	...	3	6	44	1	7	1	435

The number of cases removed to Hospitals, and the number of deaths from infectious diseases, were as follows :—

DISTRICT	CASES REMOVED TO HOSPITAL										DEATHS																
	Diphtheria	Small Pox	Erysipelas	Scarlet Fever	Tuberculosis	Ophthalmia Neonatorum	(Cerebro-Spinal Fever	Acute Poliomylitis	Enteric Fever	Puerperal Fever	Chicken Pox	Pneumonia	Encephalitis Lethargica	Diphtheria	Small Pox	Erysipelas	Scarlet Fever	Tuberculosis	Ophthalmia Neonatorum	(Cerebro-Spinal Fever	Acute Poliomylitis	Enteric Fever	Puerperal Fever	Chicken Pox	Pneumonia	Encephalitis Lethargica	
<b>Urban—</b>																											
Abercarn ...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	17	...
Abergavenny ...	...	...	...	7	...	...	...	...	...	1	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	2	...
Abersychan ...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	15	...
Abertillery ...	...	3	...	17	...	...	...	...	4	...	1	...	...	4	...	...	...	...	...	...	...	...	2	1	...	37	...
Bedwas and Machen ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	...	
Bedwellty ...	...	32	...	40	...	...	...	...	...	...	...	...	...	6	...	...	1	...	...	...	...	...	1	...	41	...	
Blaenavon ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	
†Caerleon ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	
Chepstow ...	...	11	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3	...	
Ebbw Vale ...	...	22	...	...	...	...	...	...	3	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	24	...	
†Llanfrechfa Upper ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5	...	
Llantarnam ...	...	2	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	
Monmouth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
†Mynyddislwyn ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21	...	
Nantyglo and Blaina ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21	...	
Panteg ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12	1	
Pontypool ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	
Rhymney ...	...	2	...	1	...	...	...	...	1	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	11	...	
Risca... ..	...	1	4	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	7	1	
Tredegarr ...	...	2	...	2	...	...	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	24	1	
Usk' ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
<b>Rural—</b>																											
Abergavenny ...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1
Chepstow ...	...	6	...	11	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	5	1	
Magor ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	
Monmouth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	5	...	
Pontypool ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	
St. Mellons ...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	
Totals ...	80	6	...	97	...	...	...	...	10	2	1	...	1	34	...	...	4	...	...	...	...	...	4	4	3	289	5

† Returns not received.

# Analysis of the Total Cases and Deaths according to the Age Groups.

CASES NOTIFIED.														DEATHS.												
Disease	AGE GROUPS.													AGE GROUPS.												
	Under 1 year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and over	Total all ages	Under 1 year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and over	Total all ages
Diphtheria	3	19	13	31	41	125	53	25	18	9	5	...	342	...	3	1	3	5	6	3	...	...	...	...	...	21
Malaria and Dysentery...	...	...	...	...	...	...	...	...	3	4	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	1	1	2	3	8	13	29	7	64	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	16	22	35	54	53	217	71	19	22	8	2	...	519	2	1	...	...	...	...	...	...	...	...	...	...	3
Tuberculosis	4	5	5	7	9	77	75	60	163	48	39	...	492	4	4	3	5	1	7	15	25	67	29	33	5	198
Ophthalmia Neonatorum	38	...	...	...	...	...	...	...	...	...	...	...	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	1	2	...	1	5	3	6	7	2	3	1	31	...	...	...	...	1	...	...	2	1	...	...	...	4
Puerperal Fever...	...	...	...	...	...	...	...	1	12	5	...	...	18	...	...	...	...	...	...	...	1	3	2	...	...	6
Small Pox	...	...	...	...	...	...	...	...	1	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	31	36	29	30	26	29	17	6	14	6	16	8	248	40	25	9	6	5	5	1	3	20	5	34	16	169
Encephalitis Lethargica	...	...	...	...	...	...	...	2	...	1	1	...	4	...	...	...	...	...	...	...	1	...	...	...	...	2
Chicken Pox	13	42	47	54	59	189	21	5	2	...	...	...	432	...	1	...	...	...	...	...	...	...	...	...	...	1
Totals	105	125	132	176	190	644	242	127	250	97	96	16	2200	46	34	13	14	11	19	19	32	91	37	67	21	404

N. B.— The figures for Abercarn, Caerleon, Llanfrechfa Upper, Mynyddislwyn, and Tredegar Urban Districts are not included in the above, as they were not to hand at the time of going to press with this report.



## ISOLATION HOSPITALS.

The following are the Isolation Hospitals at present in the County :—

Abergavenny Joint Hospital, Llanfoist (owned jointly by the Abergavenny Town Council and Abergavenny Rural District Council)					...	...	2	wards, 12—33	beds
Abertillery Urban Hospital, Coedcaeddu					...	...	2	„	12—14 „
Bedwellty Urban Hospital, Coedmoeth					...	...	6	„	55 „
Chepstow Joint Hospital, St. Arvans (owned jointly by Chepstow Urban and Rural District Councils)							5	„	20 „
Ebbw Vale Urban Hospital, Beaufort					...	...	5	„	10—12 „
Monmouth Borough Hospital, Buckholt					...	...	3	„	10—12 „
Nantyglo and Blaina Urban Hospital, Coalbrookvale							3	„	5—7 „
Tredegar Urban Hospital, Ash Vale, Nantybweh					...	...	2	„	20 „

Alterations to the Tredegar Urban Hospital have now been completed, and a great improvement has been effected.

Cases from Abercarn, Bedwas and Machen, Caerleon, Llanfrechfa Upper, Llantarnam, Panteg, Risca and Usk Urban Districts, and Magor, Pontypool and St. Mellons Rural Districts are admitted to the Newport Borough Isolation Hospital, Allt-yr-yn, Newport, when accommodation is available, but in the reports of the majority of these districts comment is made upon the difficulty of securing adequate facilities at that Institution.

In the Rhymney Urban District an ordinary dwelling house is being utilised for infectious cases.

The facilities in the Administrative County for the isolation of the infectious sick are still totally inadequate. Several of the Isolation Hospitals now in use are unsuitable for the purpose.

At a Public Enquiry convened by the County Council on the 3rd October, 1921, which was attended by representatives of practically all the Urban and Rural District Councils in the County, the urgent need of a County Scheme for the provision of Isolation Hospital accommodation for the County was established, but the Commissioners reported that, while they were convinced of the necessity of such a scheme, they were unable to recommend that any Order should then be made having regard to the financial position of the County.

## ZYMOTIC DISEASES.

The seven principal Zymotic Diseases are Small-pox, Measles, Scarlet Fever, Diphtheria (including Membranous Croup), Whooping Cough, Fever (including Typhus, Enteric, and Continued Fevers), and Diarrhoea.



These diseases caused 317 deaths and gave a Zymotic death rate of .85 for the County, as compared with a rate of .46 for the year 1922, .94 for 1921, 1.15 for 1920, .61 for 1919, 1.26 for 1918, .96 for 1917, .72 for 1916, 1.05 for 1915, 1.73 for 1914, 1.29 for 1913, 1.86 for 1912, 2.5 for 1911, 1.22 for 1910, .87 for 1909, 1.5 for 1908, for the County.

Table showing death rate and attack (notification) rate of Zymotic Diseases in the County of Monmouthshire during the year 1923.

Population for death rate and attack (notification) rate, 371,100.

Disease.	No. of Deaths.	Death Rate per 1000 of population.	No. of notifications.	Attack Rate per 1000 of population.	England & Wales death rate per 1,000 of population.
Small Pox ... ..	...	...	8	.02	...
Measles (including German Measles) ... ..	152	.41	Not notifiable	...	.14
Scarlet Fever ... ..	4	.01	643	1.73	.03
Diphtheria (including Membranous Croup) ... ..	34	.09	369	.99	.07
Whooping Cough ... ..	81	.22	Not notifiable	...	.10
Fever (including Typhus, Enteric and Continued Fevers) ... ..	4	.01	37	.10	.01
Diarrhoea (under two years of age) .. ...	42	.11	Not notifiable	...	...
Totals ... ..	317	.85	*1057	*2.85	...

\* Notifiable Diseases only.

#### COMPARISON OF INFECTIOUS DISEASES DEATH RATES IN MONMOUTHSHIRE.

	Measles and German Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid.
Average for years 1907-1913 inclusive ... ..	.43	.07	.92	.13	.09
1914 ... ..	.47	.13	.12	.17	.03
1915 ... ..	.71	.09	.33	.19	.03
1916 ... ..	.04	.06	.21	.12	.04
1917 ... ..	.30	.02	.11	.06	.079
1918 ... ..	.53	.03	.30	.08	.02
1919 ... ..	.003	.06	.28	.07	.03
1920 ... ..	.51	.06	.16	.18	.01
1921 ... ..	.02	.03	.17	.12	.01
1922 ... ..	.03	.02	.17	.11	.01
1923 ... ..	.41	.01	.22	.09	.01

## **MEASLES.**

A marked increase in the number of deaths from this disease is shown for the year 1923. It was prevalent in the Blaenavon, Ebbw Vale, Panteg and Pontypool Urban Districts, while in Rhymney and Tredegar it assumed epidemic proportions. A noticeable feature being that while practically all other districts suffered in the early months of the year, Blaenavon was chiefly affected in the last three months.

The epidemic which commenced in 1922 in the Abertillery district continued on until February of this year.

## **SCARLET FEVER.**

It is pleasing to record a further big decrease in the incidence of this disease during the year under review, while only four deaths are reported.

The incidence has been widespread, the affected areas being Abercarn, Abergavenny, Abersychan, Bedwas and Machen, Ebbw Vale and Tredegar Urban Districts and the St. Mellons Rural District. In Rhymney the epidemic of the end of 1922 died out early in the year. The last quarter of the year was responsible for the majority of the cases. Scarlet Fever has of recent years been of a much milder type, it is gratifying to note, although it renders control more difficult due to failure to realise the nature of the disease.

## **DIPHTHERIA.**

Cases of this disease were generally sporadic. It became epidemic in the Rhymney Urban District during the latter part of the year. In Tredegar there has been a welcome drop in the number of cases, although the Medical Officer reports the disease still too prevalent. In Abertillery the mild nature of the disease is remarked upon.

## **ENTERIC FEVER.**

There was again a slight increase in the incidence of this disease in the County, though the deaths were the same as in 1922. The Medical Officer for Tredegar comments upon the remarkable freedom from Enteric in his district. Of the eight cases occurring in the Abertillery area, seven were found in Six Bells.

## **DIARRHŒA AND ENTERITIS.**

The decreased death rate of 1922 was maintained during the year. The prevailing wet summers undoubtedly have their influence upon this condition. An improved milk supply would certainly have a marked effect upon the incidence of these diseases.

## CEREBRO-SPINAL FEVER AND ACUTE POLIOMYELITIS.

Three cases of acute Poliomyelitis occurred, but no cases of Cerebro-Spinal Fever were notified. This compares with one case of each disease for the previous year.

## SMALL-POX AND VACCINATION.

An outbreak of Small Pox in England and Wales marked the year 1923, and chiefly affected Derbyshire, Durham, Gloucestershire, Lancashire, Nottinghamshire, Yorkshire and Leicestershire.

For years past the apathetic attitude towards Vaccination has been commented upon in these reports and as was only to be expected the number of affected cases rapidly assumed serious dimensions. During the year the Registrar General reported 2,474 notifications of the disease, this number including many cases in Gloucestershire originally diagnosed as Chicken Pox.

In view of the large number of cases occurring so near to the County of Monmouthshire, it occasioned little surprise when the disease made its appearance in our area. Eight cases were notified in all, one in Abercarn, one in Abertillery, two in Rhymney, and four in Risea Urban Districts, while several suspicious cases were kept under strictest surveillance. Fortunately the disease was of a mild type and no deaths were reported.

The inadequacy of the Isolation Hospital at Cefn, led to the County Authority taking over the Abergavenny Joint Hospital at Llanfoist as a Small Pox Hospital. During the month of November it was no longer required as such, and resumed its original use. The progress of the disease was carefully watched and other measures for dealing with a possible extensive outbreak were under consideration, but as it happened the decline in the incidence, due in a large measure to the prompt precautions taken, rendered further provision unnecessary for the time being.

There is not the slightest doubt that the seriousness of the outbreak generally is due to our large unvaccinated population, and from this reason also it is quite within the realms of possibility that Small Pox, instead of being the occasional importation from abroad that it has been, will now become endemic in this country.

The scare produced a large number of vaccinations, and in the Rhymney area alone 600 persons were done in the month of July, 50 per cent. of these being school children. An instance of the efficacy of vaccination also is noted in this district. Of the two infected cases the first was unvaccinated while the

second was the only undiscovered contact, also unvaccinated. These proved to be the two worst cases in the Hospital at which they were treated.

### **CHICKEN-POX.**

As a consequence of the outbreak of Small Pox a circular letter was sent to all the Local Authorities recommending them to make Chicken Pox a notifiable disease until further notice. This precautionary measure was taken to facilitate the diagnosis of Small Pox cases, the early symptoms of both diseases being very similar.

### **WHOOPING COUGH.**

In three districts this disease was reported to be epidemic in the early months of the year, viz., Blaenavon, Pontypool and Rhymney, while it was prevalent during the same period in Abertillery and Panteg districts. In Rhymney the disease was of a mild form.

### **ENCEPHALITIS LETHARGICA AND ACUTE POLIO-ENCEPHALITIS.**

The first named disease was responsible for three deaths out of six cases notified, as compared with five deaths in seven cases notified last year. The notified cases occurred in Abergavenny Borough, 1; Llanfrechfa Upper Urban, 1; Panteg Urban, 2; Abergavenny Rural, 1; and Chepstow Rural, 1.

### **PUBLIC HEALTH (PNEUMONIA, MALARIA, DYSENTERY, Etc.), REGULATIONS, 1919.**

There was a marked decrease in the number of deaths from Pneumonia for the year under review, the figure being the lowest since the notification of Pneumonia became compulsory. It is to be regretted that many practitioners are still lax in the matter of notifying cases of this disease, consequently the figures available are no indication of the actual number of persons attacked.

### **INFLUENZA.**

The severe epidemic of Influenza in the early part of 1922 did not return in anything like that extent in 1923. Although fairly prevalent in parts of the County, the cases were generally of a mild type, with an occasional severe case appearing at intervals.

### **ERYSIPELAS.**

No comment of importance is made by the various Medical Officers upon this disease.



## OPHTHALMIA NEONATORUM.

Forty-four cases of this disease were notified under the Public Health (Ophthalmia Neonatorum) Regulations, 1914. The disease is fully commented upon in the County Maternity and Child Welfare Report for the year 1923.

Cases			Vision Unim- paired	Vision Impaired	Total Blindness	Deaths while under treatment, from causes other than Ophthalmia Neonatorum
Notified	Treated					
	At Home	In Hospital				
44	40	4	42	...	1	1

## PUERPERAL FEVER.

During the year 1923, notifications were received from the District Medical Officers of 19 cases, while in the return of deaths furnished by the Registrar-General the number due to Puerperal Sepsis was 9. In the year 1922, 11 cases were notified with 14 deaths returned; in 1921, 17 cases notified with 12 deaths; in 1920, 24 cases notified with 20 deaths; in 1919, 19 cases notified with 11 deaths; in 1918, 6 cases notified with 3 deaths; in 1917, 4 cases notified with no death; while in 1916, 13 cases were notified, 8 being fatal. The notification rate per 1,000 births in 1923 was 2.17. The notification rate per 1,000 of population equalled .05 and the death rate per 1,000 of population .02.

Full details of the cases will be found in the County Maternity and Child Welfare Report for 1923, which has already been published.

## TUBERCULOSIS.

During the year 438 cases of Pulmonary Tuberculosis were notified, and 242 deaths were registered. Of other forms of Tuberculosis 191 cases were notified and 79 deaths registered.

TUBERCULAR DISEASES.—Notification rate per 1,000 of population:—

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Pulmonary										
Tuberculosis	2.45	2.3	2.47	2.26	1.9	1.27	.78	.86	1.05	1.18
Other forms of										
Tuberculosis	.65	.68	.65	.51	.48	.37	.27	.21	.34	.51

TUBERCULAR DISEASES.—Death Rate per 1,000 of population:—

	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Pulmonary										
Tuberculosis	.6	.80	.94	.82	.96	.77	.68	.7	.69	.65
Other forms of										
Tuberculosis	.23	.28	.26	.27	.27	.21	.19	.2	.18	.21



Summary of notifications by District Medical Officers of Health to the County Medical Officer, under the Public Health (Tuberculosis) Regulations, 1912, during the period from 1st January, 1923, to the 31st December, 1923.

Age Periods.	Number of Notifications on Form A.												No. of Notifications on Form B.				No. of Notifications on Form C.				
	Primary Notifications												Total notifications including cases previously notified by other doctors).	Prim. Notifications				Total notifications including cases previously notified by other doctors).	Institutions	Sanatoria.	Hospitals.
	55 & upwards													TOTAL.							
	0 to 1.	1 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 & upwards	TOTAL.									
Pulmonary—																					
Males	...	2	2	...	1	24	37	40	29	13	10	3	161	166	1	25	17	43	...	29	101
Females	...	...	3	...	8	26	50	50	26	16	4	1	184	189	1	24	22	47	...	15	38
Non-pulmonary																					
Males	...	2	9	...	2	12	7	10	6	1	...	...	49	50	1	21	21	43	...	1	32
Females	...	2	12	...	1	12	9	5	5	2	...	...	48	49	2	31	22	55	...	14	27
Totals	...	6	26	...	12	74	103	105	66	32	14	4	442	454	5	101	82	188	...	59	198

**Cases of Tuberculosis notified under the Public Health (Tuberculosis) Regulations, 1912, during the year ended December 31st, 1923,**  
with reports upon Examinations of Sputa, etc., at the  
County Laboratory.

DISTRICTS AND SUB-DISTRICTS.				PULMONARY.			OTHER T.B. DISEASES.				Total.	
				Cases Notified	Result of Lab examination		No Specimen submitted	Cases Notified	Result of Lab. examination			No Specimen submitted
					Pos.	Neg.			Pos.	Neg.		
<b>URBAN.</b>												
<b>Abercarn</b>												
Abercarn	...	...	5	3	...	2	...	...	...	...	5	
Cwmcarn	...	...	5	3	...	2	3	...	...	3	8	
Llanhilleth	...	...	1	...	...	1	...	...	...	...	1	
Crumlin	...	...	1	...	...	1	...	...	...	...	1	
Newbridge	...	...	1	1	...	...	...	...	...	...	1	
<b>Abergavenny</b>												
Abergavenny	...	...	14	1	3	10	2	...	...	2	16	
<b>Abersychan</b>												
Abersychan	...	...	3	...	...	3	3	...	...	3	6	
Talywain	...	...	2	...	...	2	...	...	...	...	2	
Garndiffaith	...	...	2	...	...	2	2	...	...	2	4	
Pontnewynydd	...	...	2	1	...	1	...	...	...	...	2	
<b>Abertillery</b>												
Abertillery	...	...	27	7	4	16	9	1	1	7	36	
Blaina	...	...	1	1	...	...	...	...	...	...	1	
Llanhilleth	...	...	11	1	5	5	15	1	4	10	26	
Aberbeeg	...	...	3	...	2	1	2	...	...	2	5	
Cwmtilbery	...	...	7	1	3	3	1	...	...	1	8	
Crumlin	...	...	1	1	...	...	...	...	...	...	1	
Six Bells	...	...	1	...	...	1	...	...	...	...	1	
<b>Bedwas &amp; Machen</b>												
Trethomas	...	...	24	...	10	14	6	...	1	5	30	
Machen	...	...	9	2	2	5	2	...	...	2	11	
Maesycwmmmer	...	...	3	2	...	1	3	1	...	2	6	
Bedwas	...	...	7	...	1	6	2	...	...	2	9	
<b>Bedwellty</b>												
Aberbargoed	...	...	19	1	8	10	3	...	...	3	22	
Blackwood	...	...	6	...	...	6	1	...	...	1	7	
Pengam	...	...	1	...	...	1	1	...	...	1	2	
Argoed	...	...	5	2	...	3	3	...	1	2	8	
New Tredegar	...	...	16	2	4	10	4	...	1	3	20	
Cefn Forest	...	...	5	2	1	2	1	...	...	1	6	
Cwmgelli	...	...	...	...	...	...	1	...	...	1	1	
Bedwellty Village	...	...	1	...	...	1	...	...	...	...	1	
Hollybush	...	...	1	...	1	...	...	...	...	...	1	
<b>Blaenavon</b>												
Blaenavon	...	...	7	2	1	4	4	1	1	2	11	
<b>Caerleon</b>												
Caerleon	...	...	3	...	...	3	...	...	...	...	3	

DISTRICTS AND SUB-DISTRICTS.			PULMONARY.			OTHER T.B. DISEASES.			Total.		
			Cases Notified	Result of Lab. examination		No Specimen submitted	Cases Notified	Result of Lab. examination		No Specimen submitted	
				Pos.	Neg.			Pos.			Neg.
<b>Chepstow</b>	...	...									
Chepstow	...	...	2	...	...	2	...	...	...	2	
<b>Ebbw Vale</b>											
Ebbw Vale	...	...	48	5	21	22	16	...	3	13	
Cwm	...	...	22	2	5	15	6	...	1	5	
Beaufort	...	...	11	1	1	9	9	...	...	9	
Waunllwyd	...	...	6	...	4	2	2	...	1	1	
Victoria	...	...	...	...	...	...	1	...	...	1	
<b>Llanfrechfa Upper</b>											
Pontnewydd	...	...	4	1	1	2	2	...	...	2	
Cwmbran	...	...	...	...	...	...	1	...	...	1	
<b>Llantarnam</b>											
<b>Monmouth</b>											
Monmouth	...	...	6	1	...	5	...	...	...	6	
<b>Mynyddislwyn</b>											
Pontllanfraith	...	...	3	1	...	2	1	...	...	1	
Cwmfelinfach	...	...	4	1	...	3	5	...	1	4	
Ynysddu	...	...	4	1	...	3	...	...	...	4	
Fleur-de-lis	...	...	4	...	...	4	1	...	...	1	
<b>Nantyglo &amp; Blaina</b>											
Nantyglo	...	...	7	1	3	3	3	...	...	3	
Blaina	...	...	10	2	2	6	6	...	...	6	
<b>Panteg</b>											
<b>Pontypool</b>											
Pontypool	...	...	2	1	...	1	...	...	...	2	
<b>Rhymney</b>											
Rhymney	...	...	27	1	4	22	22	2	1	19	
Abertysswg	...	...	3	...	1	2	4	...	...	4	
<b>Risca</b>											
Crosskeys	...	...	8	2	1	5	6	...	1	5	
Risca	...	...	...	...	...	...	3	...	1	2	
Pontywain	...	...	1	...	...	1	...	...	...	1	
<b>Tredeggar</b>											
Tredeggar	...	...	58	9	15	34	22	...	4	18	
Trevil	...	...	...	...	...	...	1	...	...	1	
Markham Village	...	...	1	...	...	1	...	...	...	1	
Troedrhiwgwair	...	...	1	1	...	...	1	...	...	1	
<b>Usk</b>											
	...	...									
<b>RURAL.</b>											
<b>Abergavenny</b>											
Llandewi	...	...	1	1	...	...	...	...	...	1	
Llanwenarth	Citra	...	1	...	...	1	...	...	...	1	
Grosmont	...	...	1	1	...	...	...	...	...	1	
Llanarth	...	...	...	...	...	...	1	...	...	1	

DISTRICTS AND SUB-DISTRICTS.			PULMONARY.				OTHER T.B. DISEASES.				Total.
			Cases Notified	Result of Lab examination		No Specimen submitted	Cases Notified	Result of Lab. examination		No Specimen submitted	
				Pos.	Neg.			Pos.	Neg.		
Clytha	...	...	1	...	...	1	...	...	...	...	1
Llwyndu	...	...	...	...	...	...	1	...	...	1	1
<b>Chepstow</b>	...	...	...	...	...	...	...	...	...	...	...
Devauden	...	...	1	...	...	1	...	...	...	...	1
Llanishen	...	...	1	...	...	1	...	...	...	...	1
Tintern	...	...	1	...	...	1	...	...	...	...	1
<b>Magor</b>	...	...	...	...	...	...	...	...	...	...	...
Christchurch	...	...	2	1	...	1	...	...	...	...	2
Ponthir	...	...	...	...	...	...	1	...	...	1	1
Langstone	...	...	...	...	...	...	1	...	...	1	1
Bishpool	...	...	3	...	1	2	...	...	...	...	3
St. Brides	...	...	1	...	...	1	1	...	...	1	2
<b>Monmouth</b>	...	...	...	...	...	...	1	...	...	1	1
Grosmont	...	...	1	1	...	...	1	...	...	1	2
Raglan	...	...	...	...	...	...	...	...	...	...	...
Whitebrook	...	...	1	...	...	1	...	...	...	...	1
<b>Pontypool</b>	...	...	...	...	...	...	...	...	...	...	...
Little Mill	...	...	1	1	...	...	...	...	...	...	1
<b>St. Mellons</b>	...	...	...	...	...	...	...	...	...	...	...
Rogerstone	...	...	8	2	...	6	1	...	...	1	9
Bassaleg	...	...	1	...	...	1	1	...	...	1	2
Lower Machen	...	...	...	...	...	...	1	...	...	1	1
Marshfield	...	...	...	...	...	...	1	...	...	1	1
Coedkernew	...	...	1	1	...	...	...	...	...	...	1
Rhiwderin	...	...	1	...	...	1	...	...	...	...	1
Malpas	...	...	1	...	...	1	...	...	...	...	1
Total	...	..	454	71	104	279	191	6	22	163	645

Tuberculosis is a disease which frequently extends over a period of years, so that in 1914 and the years immediately following notifications were received of chronic and long standing cases, as well as the new cases coming to the knowledge of the practitioners in the County. It can now be surmised that generally the old cases have been detected and notified, and that the great majority of the cases notified in recent years are new cases only.

The notification of this disease is still not all that it might be, and much difficulty arises in the compilation of any comparative statistics. The ratio of non-notified Tuberculosis deaths in one district is given at 42.8 per cent., and the County figure would not be very different.

The reports of the Tuberculosis Physicians to the Memorial Association for the year ended March 31st, 1924, are as follows:—

**Dr. J. L. THOMAS (West Monmouthshire).**

**TIME TABLE.**

Dispensary.			
Newport	...	4 Palmyra Place	... 2nd and 4th Tuesdays in the month 11 a.m. Saturdays: 10.30 by appointment.
Visiting Stations.			
Maesycwmmmer	...	3 Railway Terrace	... 1st Monday in the month at 10.30 a.m.
Trethomas	...	Dr. Barnard's Surgery	... 3rd Monday in the month, 1.30 p.m.
Ebbw Vale	...	Central Surgery	... Every Tuesday in the month. New Patients at 11.30 a.m. Old patients at 1 p.m.
Blaina	...	Council Buildings	... 1st and 3rd Wednesdays in the month at 11.30 a.m. Old patients at 1 p.m.
Newbridge	...	30 Alexandra Place	... 1st and 3rd Fridays in the month at 10.30 a.m. Old patients at 12 noon.
Abertillery	...	72 Somerset Street	... Every Wednesday in the month at 11 a.m. Old patients at 1 p.m.
Risca	...	Public Hall	... 2nd and 4th Fridays in the month at 10.30 a.m. Old patients at 12 noon.



Tredegar	... Central Surgery	... Every Thursday in the month at 11.30 a.m. Old patients at 1 p.m.
New Tredegar	... Old Workmen's Hall	2nd and 4th Mondays in the month at 11 a.m. Old patients at 12.30 p.m.
Rhymney	... Central Surgery	... 2nd Monday in the month at 1 p.m.

The statistics for the year 1923/24 are as follows:—

Number of new cases seen	...	...	...	1,248
Number diagnosed as Tubercular	...	...	...	287
Pulmonary	...	...	...	185
Non Pulmonary	...	...	...	102
Number admitted to Hospital	...	...	...	188
Number admitted to Sanatorium	...	...	...	36

The percentage of definite cases is 22·9, a much lower one than in past years, and the most likely reason for this drop is the comparatively lesser incidence of influenza, and especially of a severe type. In this connection, it is interesting to note that this disease is not mentioned once in the whole of the Tuberculosis death returns for the year. This will be referred to again in the account of the clinical work.

Once more notice has to be taken of the large proportion of deaths from Tuberculosis which did not come under our notice. The return shows that 50 per cent. were not seen by us, and from an infection point of view it is important to note that 56 per cent. of the cases not brought to our notice were those of patients over twenty years of age. As these cases would be more or less chronic, abundant opportunity of infecting those who came in contact would be provided. There is the usual large proportion of young married women who dated their break-down from the last confinement.

Twelve chronic cases were certified from the Tredegar Workhouse Infirmary, and their sojourn there prevented them from infecting many more householders. Three returns concerned cases in Woolaston House, but these had not come under our notice.

**Causation.** The sources of infection in this area do not display any variety due to occupation, one industry, that of coal mining, vastly predominating.

The household must be considered as the chief field of infection, and this infection has doubtless been increased by the overcrowding which is so prevalent at present.

This last cause is further accentuated by the careless mode of living in the crowded tenements. Twenty years ago the miner's home generally had a spare room which could be used in case of sickness, and thus limited the possibility of infection, but in these days, unfortunately, it is seldom the case, and the almost universal habit of the two families living under one roof, using the same living room—at any rate for eating—further increases the chances of contracting tuberculosis.

**Clinical Features.** An examination of the list of upwards of a thousand children who had the Von Pirquet Test done in 1916 has been of great interest. The after history of these patients justifies amply the importance of this test being universally done, and especially at the beginning of school life.

The positive cases have usually a chequered school career, and point out the necessity for more open-air schools. In this connection one can mention that a lengthy exclusion from school attendance has been very beneficial in such cases.

There have been several cases of teachers who have come under treatment, but who had, evidently, been for some time—far too long—sources of infection to the scholars. The very erroneous idea too widely prevails that the teaching profession is a very suitable one for young folk who are too delicate to work in the mines or undertake any other strenuous occupation.

Every opportunity is taken of weeding out infected cases, and also for closer collaboration with the school medical officers. This collaboration is increasing year by year, and is a most profitable feature in our work.

The small proportion of cases sent to Sanatorium still testifies to the fact that far too many have become chronic, and thus more fitted for hospital, before they come under our notice.

Attention must once more be called to the almost universal presence of obstruction in the upper air passages. The resulting catarrh provides an opportunity for infection and the crippling in any way of the normal nasal protection may favour the beginning of the trouble.

Influenza with its varied features and causative germs has done much in the past to increase the number of chronic catarrhal cases in which tubercle has for some time lurked unsuspected.

The possibility of overlooking a case of pulmonary tuberculosis is more readily understood when we recall certain cases which have presented all the signs of pulmonary tuberculosis, but without a very great amount of

constitutional disturbance, and have made a complete recovery, even when Koch's Bacillus has been discovered at least once in the sputum.

The French Physicians have recently taken prominent notice of these cases, and have given them the very suitable, because explanatory, title of "*Tuberculose pseudo grippale curable avec catarrh Bronchique diffus.*"

The occurrence of such cases makes the study of catarrhal cases more imperative and as chiefly from occupational causes, bronchial catarrh, bronchitis, and bronchiectasis are the common ailments of workers in or about our coal mines we may easily overlook positive cases which may be only temporarily infective.

One cannot, therefore, ignore the importance of slight degrees of obstruction and infection of the upper air passages, and too much stress cannot be laid upon the need for a careful examination of all children from this point of view. In this connection one must say that there is considerable evidence that the operation for the removal of adenoids and tonsils is frequently imperfectly done, and that the after-treatment is very often neglected.

These chronic catarrhal cases, even when not tubercular, may, perhaps, be the cause of some of the cases of pseudo-coxalgia which are sent to us. Although marked by much crippling, there is, in such cases, very little disturbance of general health, which makes it more important still that a correct diagnosis be made. Interesting cases of other diseases have also been brought to the clinic. Amongst these have been cases of thoracic aneurysm, hydatid cyst in the gluteal region, spastic paraplegia, pseudo hypertrophic muscular paralysis, etc.

**Visiting Stations.** Owing to the large increase in the number of patients attending, over-crowding has been occasionally complained of, but much of this could be avoided by the exhibition of a little more mutual consideration by the patients themselves.

Even at the Central Surgeries of Ebbw Vale, Tredegar and Rhymney where there is ample accommodation, the rooms are too often crowded by chronic cases, hindering new and more urgent ones from being examined.

On account of the increase in numbers attending at these clinics, weekly visits are given at Ebbw Vale, Abertillery, Tredegar, and New Tredegar, and in order to ease the pressure at Newbridge—attended fortnightly—an endeavour has been made to find convenient premises for a visiting station at Pontllanfraith. Seeing patients here would reduce the pressure at New Tredegar, Tredegar and Newbridge.

In order further to expedite the work at these busy stations, both physicians have attended together as frequently as possible at Ebbw Vale and Tredegar, and to assist us on these occasions we have had the help of members of the County Nursing Staff, who, as health visitors in these places, are able to provide useful information with regard to the life history of patients attending.

**After-Care Committees.** In places mostly corresponding with those of our visiting stations, a beginning has been made this year in the establishment of after-care committees.

The County Health Committee has arranged that the after-care of tuberculosis patients should be undertaken by the local Infant and Maternity Committee, strengthened by additional members likely to be interested in the work.

Much good work can be expected from these committees, and it is to be hoped that ample funds will be available for proper use in helping folk to fight their disease, and that these funds will be used with a wise discrimination from the first.

Mention has been made earlier of the increasing collaboration of our work with that of the County Health Authority generally, and the Education Department in particular. The linking up of Tuberculosis, prevention and treatment, with the maternity and infant welfare service has completed the chain with the school and minor ailment clinics. Given the time and opportunity for examination, cases of tuberculosis should seldom now escape notice, and it is to be hoped that financial provision will soon be available for the erection and upkeep of suitable premises for central clinical stations.

**Radiology.** Increasing use has been made of the Association's arrangements with the Gwent Hospital Authority for the X-Ray examination of our cases, and it has been found of great assistance in the diagnosis of doubtful cases. To see such cases screened has been a great advantage.

As in past years, our work has been much helped by the cordial collaboration with the County Health Authority and its staff, and the Association has, in this area, been aided by the loyal help of the local health officers and all the general practitioners.

As usual, the superintendents of the residential institutions have treated the patients and tuberculosis officers with the utmost consideration, and the kind courtesy of the head office staff has been unfailing.

**Hospital Accommodation.** We are looking forward, and with earnest anticipation of great benefit, to the opening of the Hospital at Cefn Mably,



and doubtless the steadily increasing population in the area will keep the beds fully occupied.

My colleague, Dr. Hyde, has worked with the utmost energy and cheerfulness, and has given the Association most loyal service.

The work of the area has been lightened by the cordial assistance of the tuberculosis sister, Miss E. Williams, and the clerk, Miss C. Richards.

### **Dr. A. CARVETH JOHNSON (East Monmouthshire).**

#### **TIME TABLE.**

Institute.			
Newport	...	4 Palmyra Place	...
			Mondays: 10 a.m. (Men only). 2.30 p.m. (Women only). Wednesdays: 10 a.m. (Men). 2.30 p.m. (Children). Fridays 10 a.m. (Appointments only). Saturdays: 10 a.m.
Visiting Stations.			
Abergavenny	...	Y.M.C.A. Buildings	Thursdays 2.30 p.m.
Chepstow	...	Tygastroggy, Moor Street	...
			...
Blaenavon	...		By appointment.
Monmouth	...	Borough Buildings.	First Friday in every month, 12 noon.
Pontypool	...	Park Buildings	...
			Tuesdays 10.30 a.m. 2.0 p.m. Thursdays 10.30 a.m.

In May, 1923, Col. W. K. Beaman, M.R.C.P., started work as full time assistant in the area, with the immediate result that nearly 200 more cases were examined than in the previous year, and it was possible for Beechwood Hospital to be attended adequately.

In October, the new visiting station at the Park Buildings, Pontypool, was opened, and is being well attended. Unfortunately, the alterations are not yet complete, and only two rooms of the four can be used at present. When completed, it will form a well equipped institute, which will serve the Eastern Valley and the Rural district as far as Usk, being very easily accessible.



**SUMMARY OF WORK.**

New cases examined	...	...	...	...	1,003
Found suffering from Tuberculosis:—					
	Pulmonary	...	...	195	
	Non-Pulmonary	...	...	88	
	Total	...	—	283	
Contacts (included in above):—					
	Newport	...	...	209	
	East Monmouthshire	...	...	91	
	Total	...	—	300	
Admissions to Beechwood Hospital	...	...	...	243	
Cases Examined:—					

	Under Obs.	New Cases examined.	Diagnosed T.B.			Under Obs.
	April 1st, 1923.		Pulmonary.	Non-pulmonary.	N.A.D.	April 1st, 1924.
Boys ...	6	103	1	7	96	5
Men ...	4	134	35	13	80	9
Women	7	138	46	12	79	8
Girls ...	5	103	7	14	85	2
	—	—	—	—	—	—
	22	478	89	46	340	24
	—	—	—	—	—	—

The number of cases under observation should be very much greater. A large number of contacts and others attend regularly for examination, but for convenience they are classified under "No active disease." This may be taken as correct for the time, but is no guarantee that there may not be active disease later.

**Epidemiological Classification.**

Boys. A.				C.				Men. A.				C.			
International Classification.								International Classification.							
I.	A	B	C	A	B	C	Total	I.	A	B	C	A	B	C	Total
I.	—	—	—	—	—	—	—	I.	—	—	1	1	1	4	7
II.	—	—	—	—	—	—	—	II.	2	—	—	3	—	4	9
III.	—	—	—	—	—	1	1	III.	5	—	—	6	4	4	19
Total	—	—	—	—	—	1	1	Total	7	—	1	10	5	12	35

Girls. A.				C.				Women. A.				C.			
International Classification.								International Classification.							
I.	A	B	C	A	B	C	Total	I.	A	B	C	A	B	C	Total
I.	3	—	—	—	—	—	3	I.	—	—	1	—	1	2	4
II.	2	—	—	—	—	—	2	II.	—	5	—	6	2	1	14
III.	2	—	—	—	—	—	2	III.	13	—	—	10	1	4	28
Total	7	—	—	—	—	—	7	Total	13	5	1	16	4	7	46

The advanced cases with fever are more numerous than any other class, with the result that palliative treatment only is possible, and, unfortunately, the dictum that without early diagnosis there is no prospect of cure applies with particular force to Wales and Monmouthshire.

The deaths from Tuberculosis during the year were 127. Of these, seventy-nine, or 62 per cent., were seen by the Tuberculosis Officer. Eleven died in the Workhouse Infirmary or Asylum, leaving thirty-seven cases who were not referred to the Tuberculosis Officer, for no obvious reason. Notification in the County is still very imperfectly carried out, the great majority of cases not being notified.

**Care Committees.** In Monmouthshire under the direction of the Tuberculosis Committee of the County Council, Care Committees are being formed in every district. The existing Infant Welfare Committees are being asked to take up the tuberculosis care work, and special meetings are being held of all the local Committees. Up to the present, meetings of rather more than half have been held, at which the Tuberculosis Officer has been present, and all have agreed to undertake the work. It is hoped that this will prove of very great benefit to the patients.

In addition, as a County Council Health Visitor attends all the sessions of the Infant Welfare Committees, it is hoped that increasing numbers of contacts and suspected cases may be persuaded to attend for examination.

In November, the Tuberculosis Sister was transferred to the staff of the Newport Corporation Health Department. She still attends the Institute, and deals with Newport patients, and as an official health visitor is enabled to get much further information about the homes of the patients than was possible before.

No Tuberculosis Sister was appointed for the East Monmouthshire Area, but, by arrangements with the Monmouthshire County Council, the services of the health visitors are utilised, and they attend the visiting stations at Pontypool and Abergavenny. At Chepstow and Monmouth, the old arrangement by which the district nurses attend, still continues.

This closer co-operation between the Public Health Authority and the Tuberculosis Physicians is greatly welcomed, and can only lead to increased efficiency in the work.

**Contacts.** These may be divided roughly into two classes:—

1. Contacts of known cases examined simply because they are contacts.
2. Cases with symptoms sent for examination by practitioners, and found to be contacts on careful inquiry into their history.

CLASS 1.—Efforts are made to examine all contacts, special efforts being made in the case of children and young adults. The usual method is to either write to the patient or a near relative, asking contacts to attend, a day and time being given. This is successful in about 50 per cent. of the cases. Those who do not answer or attend are usually written to again. If that fails, personal application is made by the health visitor. As a rule, it is found that if they do not come as a result of the first letter they do not come at all. There is no power to compel attendance.

In East Monmouthshire area, letters were written in sixteen cases. Contacts seen in nine cases, totalling thirty-two actual contacts.

Total actual contacts, Class 1, seen, 179. Of these, no case was definitely diagnosed as suffering from pulmonary tuberculosis. Twenty-two cases had some suspicious signs, and have been kept under observation. The remainder have been marked N.A.D., but have been asked to report again in three to six months. Of the twenty-two observation cases, two have been since diagnosed as definite cases of tuberculosis.

CLASS 2 comprises 121 cases. Of these, twenty-four, or 20 per cent. are definite cases of tuberculosis, five being non-pulmonary. The remainder are either N.A.D. or under observation.

The Von Pirquet test was carried out in fifty-three cases in Class 1. Of these, thirty were positive and twenty-three negative.

It is interesting to note that four negative results were in the children of a man thought at the time to be a case of pulmonary tuberculosis, but now definitely diagnosed as non-tuberculous after tuberculin tests, etc.

In no case of definite open tuberculosis, where several children of a family were examined, were they all negative, though in a few cases one or two children would be negative and the others positive.

The Von Pirquet test can, in this way, be used as an additional indirect aid to diagnosis. It is well known that the majority of adults will give a positive reaction, so it is valueless as a direct aid. But by testing the children of a suspected case, the results may be all negative, in which case it is practically certain that the parent is not an open case of pulmonary tuberculosis. On the other hand, if the children are all positive, it is highly probable that the parent has pulmonary tuberculosis, any other obvious source of infection being, of course, excluded.

**Beechwood Hospital.**

Number under treatment, April 1st, 1923	...	45
Admitted during year ended March 31st, 1924	...	243
Discharged	... ..	242
Remaining	... ..	46
Number discharged:—		
Sent to Sanatorium	... ..	36
Improved	... ..	102
Not improved	... ..	20
Died	... ..	29
Discharged at own request and against advice	...	22
Discharged for disobedience	... ..	2
Admitted for observation and found to have no evidence of tuberculosis	... ..	31
		<hr/> 242 <hr/>

2,003 patients have been admitted since the hospital was opened in 1915. The hospital has been kept full throughout the year, and there is still a demand for beds. A larger number of advanced cases have been treated during the past year, and at Christmas an unusually large number were advanced bed cases. On the other hand, it was very satisfactory to see, one evening during the Christmas Festivities a number of particularly healthy looking ex-patients, who were re-visiting the hospital.

As during last year, the observation ward has been of the greatest use, and many patients were also sent to the Royal Gwent Hospital for X-Ray examination.

It is satisfactory to note that the behaviour of the patients has been particularly good during the year.

It is also pleasing to note that there has been no entry in the " Complaint Book " for over three years. I cannot help thinking that it is intimately associated with the fact that the cost per head for food is higher than in any other of the Association's institutions, also butter is supplied to the patients.

My thanks are due to Col. Beaman, who has proved a most energetic and efficient colleague, and to the staff at the Institute and at Beechwood Hospital.

I must also thank the Medical Officers of Health for East Monmouthshire, and also the general practitioners in the area, for their co-operation and assistance.



The following Tables give Details of the Work undertaken by the Welsh National Memorial Association in the Administrative County during the Year ended 31st December, 1923.

Table I.—DIAGNOSIS.

Table showing the number of Persons Examined for Diagnostic Purposes.

	Under observation pending diagnosis on the 1st of Jan., 1923	Number of new cases, including contacts, examined during the Year ended 31st Dec., 1923	TOTAL.	Number found to be suffering from Tuberculosis.		Number with no evidence of active Tuberculosis.	Number still under observation pending diagnosis last day of Year ended 31st Dec., 1923.
				Pulmonary.	Other than Pulmonary.		
Boys ...	107	417	524	10	36	332	141
Men ...	74	437	511	110	31	283	82
Girls ...	94	380	474	26	54	273	119
Women ...	107	395	502	135	30	218	108
Total ...	382	1629	2011	281	151	1106	450



Table II.—ELEMENTARY SCHOOL CHILDREN.

Table showing the number of Children attending Public Elementary Schools, who were referred by the School Medical Officers for examination by the Tuberculosis Physicians, with the result of the Examination.

	Number under observation pending diagnosis 1st Jan., 1923	Number of children referred for examination during the Year ended 31st Dec., 1923	TOTAL	Number found to be suffering from Tuberculosis.		Number with no evidence of active Tuberculosis.	Number still under observation pending diagnosis last day of Year ended 31st Dec., 1923
				Pulmonary.	Other than Pulmonary.		
Boys ...	13	58	71	1	4	52	14
Girls ...	7	66	73	2	11	39	21
TOTAL	20	124	144	3	15	91	35

Table IIa. Analysis of the cases shown above as suffering from Tuberculosis.

	Total Number	Age Groups {	Under 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	Over 13
				...	...	...	...	...	...	...	...	...
Pulmonary ...	1	...	...	1	...	...	...	...	...	...	...	...
Boys	2	...	...	...	...	...	1	...	...	...	...	...
Girls	...	...	...	...	...	...	...	...	...	...	...	...
Non-Pulmonary ...	4	...	2	...	...	...	...	...	...	1	1	...
Boys	11	...	1	...	...	1	2	2	2	...	2	1
Girls	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	18	...	4	1	...	1	3	2	2	1	3	1

Table III.—SANATORIUM TREATMENT.

Table showing results of Sanatorium Treatment

	Number under Treatment. 1st Jan., 1923		Number admitted during the Year ended 31 Dec., 1923		TOTAL.		Number discharged fit for work			Number Improved	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary		Non-Pulmonary	Pulmonary	Non-Pulmonary
							Tubercle bacilli absent from sputum	Tubercle bacilli present in sputum			
Boys...	6	...	2	...	7	...	5	...	...	...	...
Men ...	9	...	33	...	42	...	10	3	...	7	...
Girls ...	...	2	4	...	4	...	2	...	...	...	...
Women ...	12	...	12	...	24	...	8	3	...	2	...
Total ...	26	2	51	...	77	2	25	6	...	9	...

Table IV.—HOSPITAL TREATMENT.

Table showing results of Hospital Treatment

			Number under Treatment 1st day of Jan., 1923		Number admitted during the Year ended 31 Dec., 1923		TOTAL		Number discharged fit for work			No. sent to Sanatorium		Number Improved	
			Pulmonary		Non-Pulmonary										
			Tubercle bacilli absent from sputum	Tubercle bacilli present in sputum											
Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Tubercle bacilli absent from sputum	Tubercle bacilli present in sputum	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary			
Boys	...	1	10	3	26	4	36	...	...	1	...	...	1	13	
Men	...	30	10	111	15	141	25	...	...	2	9	...	45	8	
Girls	...	3	9	10	33	13	42	...	...	...	...	...	5	9	
Women	...	14	2	38	19	52	21	...	...	...	...	...	18	8	
Total	...	48	31	162	93	210	124	...	...	3	9	...	69	38	

## Patients Treated (Sanatorium and Hospital) at:

Beechwood Hospital ...	103	Talgarth Sanatorium ...	42
Glan Ely Hospital ...	136	West Wales ...	9
Pontsarn Hospital ...	3	North Wales Surgical Block ...	24
Mardy Hospital ...	1	Adelina Patti Hospital ...	11
North Wales Sanatorium ...	19	Cwmlla Hospital ...	25
St. Bride's Hospital ...	22	Penhesgyn Open Air Home ...	4
Sealyham Hospital ...	2	Preston Hall San. and Colony, Kent	8
TOTAL ...		409	

for Pulmonary and Non-Pulmonary Cases.

Number Stationary	Number Worse	Number left off treatment against advice		Number discharged for disobedience		Number of Deaths.				Number still under treatment last day of Year ended 31st Dec., 1923.	
		Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Certified as primarily due to tuberculosis		Certified as primarily due to causes other than tuberculosis		Pulmonary	Non-Pulmonary
						Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary		
2	...	...	...	...	...	...	...	...	...	2	...
3	...	...	...	...	...	...	...	...	...	17	...
...	...	...	...	...	...	...	...	...	...	4	...
1	...	1	...	1	...	...	...	1	...	6	...
6	...	1	...	1	...	...	...	1	...	29	...

for Pulmonary and Non-Pulmonary Cases.

Number Stationary	Number Worse	Number left off treatment against advice		Number discharged for disobedience		Number of Deaths				Number still under treatment last day of Year ended 31st Dec., 1923	
		Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Certified as primarily due to tuberculosis		Certified as primarily due to causes other than tuberculosis		Pulmonary	Non-Pulmonary
						Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary		
1	5	...	...	...	...	...	1	...	...	...	13
5	4	5	1	9	1	3	...	18	2	...	6
1	3	...	...	1	1	...	...	3	...	2	27
9	1	3	...	6	2	...	...	7	1	...	5
16	13	8	1	16	4	3	...	28	4	...	51

## Places of Residence of these Patients:—

## URBAN DISTRICTS—

Abercarn ...	28	Caerleon ...	3	Nantyglo & Blaina ...	23
Abergavenny ...	21	Chepstow ...	12	Panteg ...	3
Abersychan ...	19	Ebbw Vale ...	48	Pontypool ...	8
Abertillery ...	56	Llanfrechfa Upper ...	7	Rhymney ...	10
Bedwas & Machen ...	7	Llantarnam ...	7	Risca ...	14
Bedwellty ...	44	Monmouth ...	10	Tredegar ...	42
Blaenavon ...	6	Mynyddislwyn ...	16	Usk ...	3

## RURAL DISTRICTS—

Abergavenny ...	2
Chepstow ...	6
Magor ...	1
Monmouth ...	5
Pontypool ...	2
St. Mellons ...	6

TOTAL 409

**Table V.—INSTITUTE TREATMENT.**

Table showing Results of Institute Treatment of

	Number under treatment 1st day of Jan. 1923		Number admitted during the Year ended 31st Dec., 1923		TOTAL		Number discharged fit for work.			Number Improved	
							Pulmonary		Non- Pulmonary		
	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Tubercle bacilli absent from sputum	Tubercle bacilli present in sputum		Pulmonary	Non- Pulmonary
Boys ... ..	40	92	4	24	44	116	...	...	...	...	...
Men ... ..	198	48	123	29	321	77	...	...	...	...	...
Girls ... ..	58	89	20	39	78	128	...	...	...	...	...
Women ... ..	169	40	119	17	288	57	...	...	...	...	...
Total ... ..	485	269	266	109	731	378	...	...	...	...	...

**Table VI.—HOME TREATMENT.**

Table showing the results of treatment of Pulmonary and Non-Pulmonary cases, treated at

	Number under Treatment 1st day of Jan., 1923		Number admitted during the Year ended 31 Dec., 1923		TOTAL.		Number discharged fit for work			Number Improved	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary		Non-Pulmonary	Pulmonary	Non-Pulmonary
							Tubercle bacilli absent from sputum	Tubercle bacilli present in sputum			
Boys ...	11	28	1	12	12	40	...	.	...	1	1
Men ...	147	31	53	20	200	51	...	...	...	...	...
Girls ...	16	28	13	19	29	47	...	...	...	...	...
Women ...	83	27	82	10	165	37	...	...	...	...	...
Total ...	257	114	149	61	406	175	...	...	...	1	2

**Pulmonary and Non-Pulmonary Cases.**

Number Stationary		Number Worse		Number left off treatment against advice		Number discharged for disobedience		Number of Deaths.				Number still under treatment last day of Year ended Dec. 31st, 1923	
								Certified as primarily due to tuberculosis		Certified as primarily due to causes other than tuberculosis			
Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary
...	...	...	...	...	...	...	...	4	2	...	...	40	114
...	...	...	...	...	...	...	...	37	...	...	...	278	76
...	...	...	...	...	...	...	...	5	3	1	1	72	123
...	...	...	...	...	...	...	...	39	2	...	...	242	53
...	...	...	...	...	...	...	...	85	7	1	1	632	366

home by the medical practitioner in consultation with Tuberculosis Physician.

Number Stationary		Number Worse		Number left off treatment against advice		Number discharged for disobedience		Number of Deaths.				Number still under treatment last day of Year ended 31st Dec., 1923	
								Certified as primarily due to Tuberculosis		Certified as primarily due to causes other than Tuberculosis			
Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
...	...	...	...	...	1	...	...	1	1	...	1	10	36
...	...	...	...	...	...	...	...	27	2	...	...	170	47
...	...	...	...	...	...	...	...	5	1	1	...	23	46
...	...	...	...	1	...	...	...	40	3	...	...	121	33
...	...	...	...	1	1	...	...	73	7	1	1	324	162



## VENEREAL DISEASES.

The Treatment Centre for the County is at the Royal Gwent Hospital, Newport. Dr. P. C. P. Ingram is the Medical Officer in charge of the Centre.

The days and hours of the sessions are:—

Males.—Mondays at 4 p.m.  
 ————— Wednesdays at 2 p.m.  
 Thursdays (old cases only) at 4 p.m.  
 Fridays at 6 p.m.

Females.—Mondays at 2 p.m.  
 ————— Thursdays at 2 p.m.

Facilities for irrigation of cases of gonorrhœa during the intervals between the clinics are available at the Royal Gwent Hospital, Newport.

The bacteriological examinations in connection with the Centre are conducted at the County Laboratory by Dr. H. W. Catto, the County Pathologist and Bacteriologist, who has been approved for the purpose by the Ministry of Health.

Good results continue to accrue from the work of the Inquiry Officer, Nurse E. M. Walters, amongst women and children suffering from Venereal Disease. This officer visits female patients (old and new) to encourage them to undergo, and persevere with, treatment at the Clinic. She also attends at the Treatment Centre on the days fixed for female patients. The work accomplished by her during the year was as follows:—

No. of visits paid in the Administrative County:—

	1923	1922
To new cases which came to her knowledge and which had not undergone treatment ... ..	254	342
To old cases in which visits to the Treatment Centre had been discontinued before completion of treatment, also to old cases still under treatment ...	946	1342
To members of Voluntary Agencies, District Nurses, etc.	235	265
To suspicious cases (under observation) ... ..	41	148
	-----	-----
Total ... ..	1476	2097

An arrangement has been made whereby a bed is reserved for Monmouthshire women at the Venereal Diseases Hostel at Cheltenham, provided by the Gloucestershire County Council. During 1923 two cases were admitted from this County. Other arrangements will have to be considered in view of the closing down of this Institution at the end of March, 1924.

A further campaign of Lectures, to be conducted by Dr. Laura Rees and Dr. W. J. Roche, throughout the County was arranged at the end of the year under review, details of which will be included in the Annual Report for the year 1924.

The following is the report of Dr. P. C. P. Ingram upon the results of the year's work at the Treatment Centre:—

“ While in the last two annual reports a decrease in the number of new cases had to be noted the figures for the past year show a small increase. No doubt the lecture campaign held during the earlier part of the year had something to do with this, as the figures for the country as a whole show again a decline. There is again a gratifying increase in the number of attendances, both male and female.

Co-operation with the Maternity and Child Welfare Centres continues and the Lady Enquiry Officer, by being in touch with these as well as the Clinic, has been of considerable service, both in persuading patients who have been brought to her notice by the Medical Officers of the Centres to come to the Clinic, and further, in seeing that they attend regularly after. Over a third of the new cases of women and children came directly or indirectly as the result of Welfare work in the County.

It will be noticed that some new drugs appear under the heading of Salvarsan substitutes used. These have been approved by the Ministry of Health as the result of work principally of the Medical Research Committee, and though adding to the work of those at the Clinic the more extended range of drugs has already been noted to be of benefit, and further developments are in progress in this direction.

There is again a decrease in the number of new cases of Syphilis and this explains the reduced number of examinations for the detection of spirochætes and for the Wasserman reaction. A comparatively short period of attendance will, while by no means curing the patient, reduce his power of infecting others to a negligible quantity, and a lessened incidence of the disease is the result. A much longer period is necessary in the case of gonorrhœa and it is gratifying to find an increase in the number of the cases of this which, though more widespread, is a less disabling disease, and for this reason one upon which the patient is less likely to seek medical advice.”



Details of the work carried out at the Laboratory and Treatment Centre during the year 1923, are as follows:—

1.—COUNTY LABORATORY, COUNTY HALL.

RETURN OF SPECIMENS EXAMINED.

	1923.										GRAND TOTAL.	Previous Year (1922).
	For detection of Spirochaetes.		For detection of Gonococci.		For Wassermann reaction (Syphilis).		Other Examinations.		TOTAL.			
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males		
From County of Monmouth—												
Treatment Centre ...	63	9	454	133	518	308	29	13	1064	463	1527	1577
Practitioners ...	6	—	92	23	176	70	4	—	278	93	371	306
From County Borough of Newport—												
Treatment Centre ...	117	7	440	95	485	181	14	10	1056	293	1349	1352
Practitioners ...	11	—	120	21	167	53	4	—	302	74	376	311
From Other Districts— (All from Treatment Centre) ...												
Glamorganshire ...	2	—	4	—	9	3	—	—	15	3	18	45
Breconshire ...	—	—	2	—	4	2	—	—	6	2	8	14
Other Counties ...	—	—	1	—	—	1	—	—	1	1	2	7
Totals ...	199	16	1113	272	1359	618	51	23	2722	929	3651	3612

No. of doses of substitutes for Salvarsan supplied to Medical Practitioners:—

		1923.	1922.
Novarsenobillon	·6 grm. =	133	187
"	·45 " =	81	55
"	·3 " =	32	38
Galyl	·4 " =	—	—
"	·3 " =	—	—
		<u>246</u>	<u>280</u>

The number of practitioners upon the register for the supply of salvarsan substitutes is sixteen.

## 2.—TREATMENT CENTRE.

(ROYAL GWENT HOSPITAL, NEWPORT).

Returns of Dr. P. C. P. INGRAM, Medical Officer of Centre, to the Medical Officer of Health, relating to persons residing in the County of Monmouth.

	1923.			1922.		
	Males.	Females.	Total.	Males.	Females.	Total.
1.—Number of persons dealt with at or in connection with the Out-patient Clinic for the first time and found to be:—						
Suffering from syphilis ...	75	65	140	90	66	156
„ „ soft chancre ...	14	—	14	9	—	9
„ „ gonorrhœa ...	104	23	127	93	30	123
Not „ suffering from venereal disease ...	46	45	91	37	43	80
Total ...	239	133	372	229	139	368
2.—Number of persons discharged from the Out-patient Clinic after completion of treatment for:—						
Syphilis ...	14	2	16	4	2	6
Soft chancre ...	3	—	3	7	—	7
Gonorrhœa ...	21	6	27	24	2	26
Not suffering from venereal disease ...	18	3	21	29	7	36
Total ...	56	11	67	64	11	75
3.—Number of persons who ceased to attend the Out-patient Clinic without completing treatment, and who were suffering from:—						
Syphilis ...	51	24	75	48	23	71
Soft chancre ...	3	—	3	4	—	4
Gonorrhœa ...	56	37	93	39	12	51
Not suffering from venereal disease ...	9	12	21	—	—	—
Total ...	119	73	192	91	35	126
4.—Total attendances of all persons at the Out-patient Clinic who were:—						
Suffering from syphilis ...	1919	1693	3612	2218	1659	3877
„ „ soft chancre ...	120	—	120	62	—	62
„ „ gonorrhœa ...	1613	282	1895	1266	265	1531
Not found to be suffering from venereal disease ...	85	119	204	105	78	183
Total ...	3737	2094	5831	3651	2002	5653

	1923.			1922.		
	Males.	Females.	Total.	Males.	Females.	Total.
5.—Aggregate number of "In-patient days" of treatment given to persons suffering from:—						
Syphilis ... ..	155	174	329	253	243	496
Gonorrhœa ... ..	285	290	575	268	77	345
Total ... ..	440	464	904	521	320	841
6.—Number of persons treated with Salvarsan substitutes ... ..	261	192	453	252	150	402
7.—Number of doses of Salvarsan substitutes given:—						
Name of drug—Novarsenobillon						
dose .005 ... ..		52			—	
dose .01 ... ..		1			5	
dose .02 ... ..		—			12	
dose .05 ... ..		—			24	
dose .1 ... ..		21			3	
dose .15 ... ..		22			—	
dose .2 ... ..		134			122	
dose .3 ... ..		273			192	
dose .4 ... ..		6			2	
dose .45 ... ..		353			565	
dose .5 ... ..		18			68	
dose .6 ... ..		285			612	
Name of drug—Silver Salvarsan						
dose .1 ... ..		11			—	
dose .2 ... ..		74			—	
dose .3 ... ..		107			—	
dose .45 ... ..		144			—	
Name of drug—Stabilarsan and Novarsenobillon						
dose .1 ... ..		3			—	
dose .18 ... ..		5			—	
dose .2 ... ..		7			—	
dose .3 ... ..		14			—	
dose .36 ... ..		5			—	
dose .45 ... ..		14			—	
dose .6 ... ..		108			—	
Total ... ..		1657			1605	
8.—Examinations of Pathological material:—	Males.	Females.	Total.			
Specimens from persons attending at the Treatment Centre which were sent for examination to an independent Laboratory—						
For detection of spirochaetes ... ..	63	9	72		92	
For " " gonococci ... ..	454	133	587		558	
For Wassermann reaction ... ..	518	308	826		927	
Others ... ..	27	13	40		4	
Total ... ..	1062	463	1525		1581	

## **DISINFECTION.**

### **Disinfection of Schools.**

The disinfection of Schools following outbreaks of infectious disease is now carried out by the County Sanitary Inspector, and the " MacKenzie Spray " with a solution of " Kerol " is used.

### **Disinfection of Rooms, etc.**

Two methods of disinfecting rooms are generally in practice in the County, viz., by gaseous disinfectants or by liquid disinfectants. Advantages are claimed for each system, both being equally efficient if carried out thoroughly, but there is no doubt that the latter saves a considerable amount of inconvenience.

The disinfection of rooms is systematically done in some of the districts in the County, but complaints have been received by the County Authorities from outlying areas that no attempt has been made to disinfect after an outbreak of disease, while in other districts the lack of central administration for Rural Authorities has been responsible for regrettable delays. It has also been reported that where gaseous disinfection is used, adequate measures to prevent the escape of the sulphurous acid gas or the formalin gas used, are not always taken.

### **Disinfection of Bedding, Clothes, etc.**

The absence of facilities for the disinfection of bedding, clothes, etc., in the County, is greatly to be deplored. In a very few districts only has provision for steam disinfection been made. Some areas adjoining the County Borough of Newport make arrangements with the Borough Authority for the work to be done, at a fee.

Apart from disinfection by steam, the prevailing course is to include the bedding and clothing in the room to be treated with gaseous disinfectant, and where this is not done—and instances are known—the articles are not disinfected. The idea that so called disinfectant soaps are effective germicides is present in the minds of an astounding number of people. These preparations, which are in the main little more than deodorants, should on all occasions be discouraged.

In the absence of satisfactory arrangements for most of the Sanitary Authorities, it would appear that the provision of a County Travelling Disinfectors is the solution to the present difficulties.

## **SANITARY ADMINISTRATION.**

Mr. W. E. Thorn, A.R.S.I., M.S.I.A., the County Sanitary Inspector, assists the County Medical Officer in his sanitary investigations. Where the local Council is involved, he is accompanied by the Sanitary Inspector for the district concerned.



His duties during the year may be summarised as follows:—

Investigations of—

- Sanitary conditions of Schools.
- Pollution of Rivers and Streams.
- Causation of Outbreaks of Infectious Disease.
- Water Supplies of the County.

Nuisances arising from—

- Drainage, Sewerage and Sewage Disposal.
- Refuse Disposal.
- The Keeping and Slaughtering of Animals, etc.

Inspections of—

- Dairies and Cowsheds.
- Dwellings where insanitary conditions, overcrowding, etc., were reported.
- Home conditions of persons suffering from Tuberculosis, etc.

Taking of samples of water, milk, and sewage effluent for bacteriological and chemical examination at the County Laboratory; the disinfection of premises; attendance at Enquiries, etc.

During the year 56 Schools, comprising 61 Departments were disinfected after closure due to infectious diseases.

Under the County Medical Officer's scheme for securing a clean and wholesome milk supply, 191 "informal" samples were taken. All the samples were examined by the County Pathologist for tubercle, zymotic disease and dirt contamination, and his comments will be found later in this Report under "County Laboratory." Where an unsatisfactory result is shown, a letter of warning is sent by the officials of the local Council to the producer or retailer from whom the sample was taken.

The working of the scheme has had far reaching effects upon the purity of the milk supply in the districts in which operations have so far been carried out; increased attention to details of cleanliness and better conditions of production, storage and distribution having resulted.

Investigations have also been carried out where farmers and milk sellers have contemplated the selling of any of the "Graded Milks" provided for under the Milk and Dairies (Amendment) Act, 1922. Three farms in the Administrative County are now producing "Grade A" Milk, while another is about to undergo extensive alterations in order to comply with the high standard, subject to which a Licence can be issued. The milk from two of these farms (Chepstow and Castleton) is retailed in Cardiff, the remaining farmer both produces and retails in the Monmouth district.



A considerable amount of the statistical work of the department is also prepared by this official.

## **WATER SUPPLY.**

With an annual rainfall well above the average no complaints of shortage were received, though it is to be feared that a long period of drought in any year would give rise to serious conditions in many parts of the County, and every effort would have to be made to conserve supplies.

Excellent progress has again been made with the Abertillery and District Water Board's Gwryne Fawr scheme. 23,366 cubic yards of masonry have been built into the dam, which at the end of the year had reached a height of 70 feet above ground level. The Gwryne Fawr water is being supplied to constituent areas through a 16 inch steel main, pending the completion of the works.

The supply from the Shon Sheffrey spring, which serves the major portion of the Tredegar Urban District and large portions of the Bedwellty and Mynyddislwyn Urban Districts, is now filtered and is reported to be of a high degree of purity. Another Tredegar supply, the Ton-y-fedw spring is also of good quality.

The Rhymney Valley is supplied by the Rhymney Valley Water Board, which has recently taken over the distribution of water previously performed by the Rhymney and Aber Gas and Water Company and other authorities in the valley, the chief source of supply being the Taf Fechan Water Board. Cefn Forest is supplied with water from the Britannia Colliery.

The water supply of the Ebbw Vale Urban District not only meets the needs of that district, but also those of Nantyglo and Blaina, and part of Tredegar. This water is of an actively plumbo-solvent nature.

The Pontypool Gas and Water Company supply Pontypool and most of the Panteg district.

The water problem of the Village of Manmoel has been solved, and a supply is to be pumped from the Sirhowy Valley mains.

In the rural areas of the County where the supplies are largely from wells and springs, there arises from time to time instances of contamination from surface water, etc. These cases are promptly dealt with, but there are many more that, with reasonable care on the part of the users, could be productive of water of a purer quality.

## **SEWERAGE AND DRAINAGE.**

The Rhymney Valley Main Trunk Sewer is now nearing completion, and in some districts the construction of subsidiary sewers has commenced. The

forthcoming year should see a big advance in the work of preparing to connect up, and it is hoped that in the not very distant future, we shall see the Rhymney River free from serious sewage pollution.

The Western Valleys Main Trunk and Sirhowy Valley Sewers are still not taken advantage of as they could be. Again this vital question must be urged upon the Local Authorities concerned.

Conditions in the Eastern Valley become more acute each year, the Panteg Urban District being the only authority making any attempt to treat crude sewage before its entry into the river. There seems little likelihood of any sewerage scheme being proceeded with some years to come.

The question of the sewerage arrangements for the village of Hafodyrynys was investigated, and while other Councils have satisfactorily dealt with their portions of the Village, the Abersychan Council has yet to come into line, consequently the objectionable pail closet system still prevails in that portion under their administration.

The intersecting sewer of the Abergavenny Borough Council was cleansed throughout its length during the year.

In the Rhymney Urban area subsidence again necessitated the relaying of some drains and the continual clearing of others. The conversion of privies and earth closets to water closets, the fixing of flushing tanks in place of hand flushing, and the replacement of old closet pans by those of the pedestal type, are improvements gradually being effected each year. Cases where one closet serves two or more houses are also less frequent than hitherto.

## **POLLUTION OF RIVERS.**

The Afon Lwyd and the Rhymney River still serve as open sewers for the valleys through which they flow, though the latter stream will shortly benefit from the completion of the Rhymney Valley Main Trunk Sewer.

The tipping of colliery refuse in close proximity to the river banks, which in many cases has an effect upon the course of the stream, is to receive attention.

It is a regrettable feature that the rivers in the industrial parts of the County are considered by so many people as the natural dumping places for refuse and filth of all descriptions, varying from discarded machinery to decomposed food. The County Sanitary Inspector in the course of his investigations reports drainage from slaughter-houses, animal sheds and manure heaps; wholesale tipping of house refuse and trade refuse from premises adjoining the streams. The attention of those Local Authorities having refuse tips near the river banks is again called to the careless tipping which results in quantities of tins, etc., finding a resting place in the river bed.

Obstructions in the river beds sometimes give rise to very grave complications, for the slightest diversion of the scour of the water, for a few days even, can cause a permanent change of the river's course, to the detriment of adjoining property.

## HOUSE REFUSE AND SCAVENGING.

Scavenging is carried out in the industrial areas either by the local Council, by Contractors, or by both. Although in a few districts a daily collection of house refuse is undertaken, in most cases it is carried out at intervals of two or three days.

Tipping on land is practically general, only two Councils having installed Refuse Destructors, viz., Abertillery and Pontypool. The latter district now finds that additional provision is necessary to cope with the increased amount of refuse. It is becoming more and more difficult to find new sites for tipping in many areas, and the provision of destructors is the only solution to what is fast becoming a serious problem.

Motor lorries are replacing horse drawn vehicles in several areas, and on account of the increased speed, adequate covers should be fixed to prevent refuse being blown about. The collections should be made as early in the day as possible, before food shops open and their deliveries commence.

Some Rural Authorities still do not cater for their urban population in cases where parts of their areas adjoin towns, and it is hoped that attention will be given to this question. If the Councils do not themselves undertake the collection, no doubt a contract with the adjoining Council or their Contractors could in most cases be entered into.

## HOUSING.

The following table shows the progress made in the construction of new dwellings by the District Councils during the year:—

**Position of Housing Schemes of the various  
Councils at 31st December, 1923.**

	Total Number of Houses originally proposed to be erected.	Total number completed.	Total No. completed during 1923.	Remarks.
<b>URBAN.</b>				
Abercarn ...	702	132	20	20 at Llanfach. 3 Houses and 7 Bungalows in addition, private enterprise.
Abergavenny ...	240	22	6	5 in addition, private enterprise.
Abersychan ...	1000	174	31	14 in addition, private enterprise.
Abertillery ...	80	72	24	
Bedwas and Machen	400	144	—	2 Bungalows, private enterprise.
Bedwellty ...	1100	202	23	6 in addition, private enterprise.
Blaenavon ...	144	144	—	3 houses, private enterprise.
Caerleon ...	—	—	—	Scheme held up.
Chepstow ...	—	—	—	No Council Scheme, 1 Bungalow.
Ebbw Vale ...	240	298 houses 45 huts	—	53 Houses erected.
Llanfrechfa Upper	60	16	—	No report received.
Llantarnam ...	175	16	—	3 Houses, private enterprise. Several in course of construction.
Monmouth ...	—	—	—	No report received.
Mynyddislwyn ...	128	60	60	70 nearing completion. 103 in addition, private enterprise.
Nantyglo and Blaina	186	84	16	20 in course of construction.
Panteg ...	160	111	10	In addition 10 by Assisted Scheme and 7 private enterprise.
Pontypool ...	260	130	—	
Rhymney ...	150	50	—	10 in course of erection.
Risca ...	750	155	—	11 houses, private enterprise.
Tredegar ...	500 brick houses 25 wooden bungalows	100 houses 25 bungalows	3	5 in addition, private enterprise.
Usk ...	—	—	—	No report received.
<b>RURAL.</b>				
Abergavenny ...	116	—	—	8 by private enterprise.
Chepstow ...	130	—	—	9 by private enterprise.
Magor ...	—	—	—	14 by private enterprise.
Monmouth ...	24	10	—	4 by private enterprise.
Pontypool ...	20	20	—	6 by private enterprise.
St. Mellons ...	138	122	22	70 in addition, private enterprise.



While good progress has been made in some areas, the original Housing Schemes of many of the local Councils show a total of houses proposed to be erected which are not likely to be attained under the present economic conditions. With Local Authorities reaching their limit, and the activities of private builders being mostly confined to the construction of what might be called the residential class of property, the outlook for houses for the working classes is anything but satisfactory.

Section 28 of the Housing, Town Planning Act, 1919, is to be commended to Local Authorities as enabling them to get such work done as will render unfit dwellings fit for habitation. Excellent results have been obtained in some districts, and in the Abersychan Urban area, where the Council have carried out the work in default by owners, they have recouped themselves by collecting the rents of the houses until their expenditure is covered. Owners are not so averse to this procedure as may be at first thought, many being only too pleased to have their property put into a good state of repair.

### **SALE OF FOOD AND DRUGS ACT.**

At the meeting of the Works and General Purposes Committee, held on the 13th July, 1920, it was decided that the County Medical Officer should exercise general supervision over the action to be taken in pursuance of the Acts and Regulations under the Sale of Food and Drugs Acts, and that he, the County Analyst, and, if necessary, the Clerk, should confer as to the details of the proceedings necessary to secure observance of the Acts and Regulations.

The Administrative County is divided into three districts for the purposes of these Acts, as follows:—

District “A,” under the supervision of Inspector T. H. Lewis, assisted by Mr. A. A. Coles, and comprising the Municipal Boroughs of Abergavenny and Monmouth, the Urban Districts of Abersychan, Blaenavon, Llanfrechfa Upper, Llantarnam, Panteg, Pontypool and Usk, and the Rural Districts of Abergavenny, Monmouth and Pontypool.

District “B,” under the supervision of Inspector G. G. Probert, assisted by Mr. T. R. Davies, and comprising the Urban Districts of Abercarn (Part), Abertillery, Bedwellty, Ebbw Vale, Mynyddislwyn (Part), Nantyglo and Blaina, Rhymney and Tredegar.

District “C,” under the supervision of Inspector J. R. Gamble, assisted by Mr. Harold S. Williams, and comprising the Urban Districts of Abercarn (Part), Chepstow, Llantarnam, Mynyddislwyn and Risca, and the Rural Districts of Chepstow, Magor, and St. Mellons.

During the year 1,159 samples were examined by the County Analyst, Mr. G. R. Thompson, F.I.C., F.C.S.



The following schedule gives details of the samples taken for analysis and in which Police Court proceedings were instituted, arranged according to the respective districts:—

District in which sample was taken.	Nature of Sample.	Extent of Adulteration, etc. of Sample.	Result of Police Court Proceedings.
Abergavenny ...	Milk.	17.0% deficient in fat ...	Dismissed.
Do. ...	„	15.0% do. do. ...	do.
Do. ...	„	10.0% do. do. ...	do.
Abertillery ...	„	13.29% added water ...	do.
Mynyddislwyn ...	„	28.33% deficient in fat ...	To pay £5 costs.
Tredeggar ...	„	26.33% do. do. ...	Fined £3 3s. 0d. and £2 2s. 0d. costs.
Do. ...	„	9.33% do. do. ...	Fined £3 3s. 0d. and £2 2s. 0d. costs.

Twenty-six vendors were cautioned during the year on account of unsatisfactory samples of the following:—Milk, 22; Lemon Curd, 1; Cocoa, 2; and Sponge Roll 1.

The report of the County Analyst for the year is as follows:—

“ I have the honour to furnish you with my Annual Report upon the work done by me as Public Analyst during the year ending December 31st, 1923.

The total number of samples analysed by me during 1923 was 1,159 compared with 1,169 over 1922, and which were submitted as follows:—

From Division “ A ”	... ..	305 Samples.
From Division “ B ”	... ..	494 „
From Division “ C ”	... ..	356 „
From Local Authorities	... ..	3 „
From Medical Officer of Health for County		1 Sample.

The distribution of the samples over the three divisions of the County is very similar to that of the previous year, but the samples from Local Authorities are less.

In the year 1922 we had 782 milk samples against 735 in 1923, and of these I have reported 705 as genuine in regard to content of fat and solids-not-fat, with 6 samples containing added water, and 24 being deficient in fat, but not a single sample has been found to contain preservatives and/or colouring matter. I show later a tabular comparison for several years and you will observe the gradual improvement in regard to the composition of the milk samples and further the decrease in what might be termed “ rank ” adulteration, although we still find some few serious cases at intervals.

The samples reported as containing added water ranged from 3.77 per cent. to 13.29 per cent., but of the six which were so condemned there were but four which could by any means be regarded as too serious to be considered capable of explanation by "natural causes." The cases of deficiency in fat were, however, 24 in number, ranging from 4.66 per cent. to 28.66 per cent. below the figure for genuine milk, and in my opinion I could not believe that of these deficiencies there were more than two cases wherein the cow could be held responsible; of course there are occasional instances when a cow may give milk notably departing from standard in regard to fat, but as a rule the samples of milk taken in the County are the product of mixed herds or at any rate in the majority of cases the milk of more than one cow, hence it is difficult to reconcile deficiencies in fat to the extent found at any rate in 22 of the cases. When we consider the average composition of the whole of the samples taken over the whole year and over all parts of the County, and which average I give below, it will be seen that we have certainly a good average milk as judged by the officially-taken samples.

Under my general and usual classification we have the results as below:—

(a) According to content of fat:

Under 3%	3 to 3.49%	3.5 to 3.99%	4 to 4.49%	4.5% and over.
<hr/> 24	<hr/> 258	<hr/> 302	<hr/> 112	<hr/> 39

(b) According to content of solids-not-fat:

Under 8.5%	8.5 to 8.69%	8.7 to 8.89%	8.9 to 9.09%	9.1% & over
<hr/> 6	<hr/> 124	<hr/> 250	<hr/> 219	<hr/> 136

These results give us an average composition, including adulterated samples, at—fat 3.66 per cent.; solids-not-fat 8.88 per cent.; Total solids 12.54 per cent.

That we have a general improvement in quality year by year judged upon the actual percentage of adulterated samples as well as detailed composition I give a table showing results from the year 1916, when we reached a figure of adulteration in milks of 10.30 per cent. of those received, and I suggest that these figures speak for themselves as to the great improvement over the last few years, especially as we do not now get those glaring instances of gross sophistication with which we used to meet.

Year.	Fat.	Solids not Fat.	Percentage of Adulteration.
1916	3.79%	8.73%	10.30%
1917	3.68%	8.71%	10.67%
1918	3.67%	8.63%	7.59%
1919	3.73%	8.74%	5.07%
1920	3.58%	8.61%	4.38%
1921	3.52%	8.84%	5.20%
1922	3.67%	8.84%	4.60%
1923	3.66%	8.88%	4.08%

In addition to the samples of actual milk, there have been 56 samples analysed of milk products, consisting of separated, evaporated and/or condensed milk, with butter included, but it has not been necessary to report against any one of this class.

I have previously referred to the advantages gained under the new Regulations for Condensed Milk, and it is noteworthy how well the requirements of these Regulations have been met by the various makes of condensed milk now upon the market and with the further Regulations as to Dried and Evaporated Milk now in force it is reasonable to expect in similar manner a good conformation to the requirements.

In these days of heavy costs for carriage, etc., provided that it is possible to get milk like other commercial articles in concentrated form to save thereby bulk and weight in transit, it would appear a natural saving on the part of the consumer, and in the case of milk, so perfect are the various processes for concentration that many of the very large users of milk are gradually turning to dried material which not only saves in bulk, etc., but has the important advantage that there is practically no risk of "souring" or decomposition even over long periods and so far as modern research appears to have gone, the actual food or nutritive value of the dried milk does not appear to have been altered within reasonable limits, although for feeding of children and invalids the natural milk *must* hold its own, probably owing to the fact that the Vitamines present may be changed to some extent by any artificial treatment, but so far as the uses of milk for cooking, confectionery and other uses outside the real need for children, there seems to be no reason at all for objection to the conservation and concentration of milk as carried out by present day processes.

Of my own knowledge there are on the market to-day condensed and dried milks which when diluted according to the directions given, are of equal value to the original milk, but have this one great advantage over the original milk, that their bacterial content has been reduced during the process of concentration to probably one thousandth of the raw milk and this purely by a scientific sterilization during concentration.

The butter samples have all proved of excellent purity not a single instance having occurred of admixture with foreign fats by way of adulteration; the content of moisture has in some cases caused me considerable worry as it is clear that some factories run the limit allowed to an extreme, even with an occasional small excess, but there would appear to be but little if any excuse for anything over and above the sixteen per cent. of moisture now permitted.

Preservatives are of course still employed, boric acid being the chief one used, but it is satisfactory for me to refer to the fact that it has not been necessary for me to report against any excessive addition.

Lard, which at one time was seriously and grossly adulterated has proved of high purity over the year; moisture to any extent is almost unknown now, and it is very rare indeed to meet with that which was at one time fairly common, i.e., a rancid sample, and I have not certified against any sample during the year.

The Pudding Stuffs such as jams, jelly, flour, rice, baking, and other cooking powders, tapioca, sago, etc., formed a large class over the year for there were 214 samples taken; the vast majority of these were exceptionally good, clean and wholesome; the baking powders which used to give us much trouble have become normal, probably mainly because the Housewife has found by experience that these brands which were inferior were not worth the buying, consequently not worth while their being made; sugar is rarely adulterated now and dyed samples are on the decrease, and as a result of my observations and experience, I am led to believe that except perhaps in some rare instances, when adulteration is found in this class of goods, it is probably accidental rather than deliberate, as the risk of detection is great, the penalties on detection are greater still, but it does occasionally happen that accidental impurities creep in as in the case of certain cocoa which was found to be contaminated by arsenic, but this was clearly shown to have been derived from quite an unlooked for source and immediately this was discovered, the manufacturers at huge losses to themselves removed the offending article from sale, although we in this County did happen to find some overlooked stock and took measures accordingly; again, boric acid has been found in some rather unexpected places even when the article bears a special label as to its freedom from all traces of preservatives, but we had one well-marked case of this occurring and we subsequently found it had been accidentally introduced through error or inadvertance.

Colouring matters when present in foods in order perhaps to add to their attractiveness, have not been found to be of an injurious nature; the variety of colours which are perfectly harmless and which can be extracted from fruits, vegetables, etc., are perfectly admissable so long as they are not used to cover up inferiority, but we have had no case of such faking by colours.

Articles used for beverages, such as coffee, lemonade powders, etc., have been examined and in the 49 samples of such, nothing of objectionable nature has



TABLE SHOWING THE NUMBER OF SAMPLES TAKEN IN EACH DISTRICT.

[illegible]





been found; when mixtures of coffee and chicory have been sold, it has been under due declaration and in moderation of the cheaper ingredient.

Spices and Condiments to the number of 45 have been very fully examined and whilst of course one naturally expects natural variations in quality according to price, it is most satisfactory to be able to report no case of actual adulteration or substitution; husks and portions of waste fruit, seeds, etc., which have been known to have been admixed to increase the weight or bulk of the valuable material have been conspicuous by their absence.

The ordinary drugs and medicinal preparations in common demand have had their share of attention and have proved singularly pure and of satisfactory strength and I think it may be safely assumed that the "cheap and nasty" which at one time rather tended to flood the poorer markets have ceased to be, probably owing again to risk of detection and subsequent punishment and publicity.

The full distribution of the articles over the year is as under:—

Milk 735, milk products 56, lard 36, sugar 3, pudding stuffs 214, beverages 49, spices and condiments 45, drugs 9, potted meats 5, and peas 7. i.e., a total of 1,159, out of which only 37 have been certified as adulterated thus furnishing a figure of percentage adulteration at the low one of 3.19 per cent. of all samples received."

## **PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912 AND 1917.**

Report of the County Analyst for the year ended 31st December, 1923:—

### **(1) Milk and Cream not sold as Preserved Cream.**

(a) Number of samples examined for the presence of a Preservative.					(b) Number in which a Preservative was reported to be present.
Milk	...	...	...	735	Nil
Separated Milk	...	...	...	5	Nil
Cream	...	...	...	Nil	Nil
Condensed Milk	...	...	...	3	Nil

### **(2) Cream sold as preserved Cream.**

Nil

#### **(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the labels as to preservatives were correct.**

(i) Correct statements made ... Nil

(ii) Statements incorrect ... Nil

(iii) Percentage of Preservative found in each sample.	Percentage stated on Statutory label.
Nil	Nil

(b) Determinations made of Milk Fat in Cream sold as Preserved Cream

(i) Above 35 per cent.	...	...	...	Nil
(ii) Below 35 per cent.			...	Nil

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved Cream in Article V (1) and the proviso in Article V (2) of the Regulations have not been observed.

Nil

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.

Nil

(3) Thickening substances.—Any evidence of their addition to cream or preserved cream :—

Nil

Action taken where found	...	...	Nil
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(4) Other observations, if any	..	...	Nil
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## PUBLIC HEALTH LABORATORY.

Facilities are offered to all Medical Practitioners in the Administrative County, free of charge, for bacteriological examinations, and the services of the Pathologist and Bacteriologist are available for any other assistance which may be required in the diagnosis of cases of disease. The following table shows the number of specimens examined during the year and also in the previous year. The majority of the sputum tests were conducted for the Welsh National Memorial Association, whilst venereal diseases specimens for the most part came through the treatment centre at the Royal Gwent Hospital, Newport.

Table showing nature of specimens submitted for examination and the results thereof :—

Nature of Specimen.	No. Examined.		No. Positive.		No. Negative.	
	1922	1923	1922	1923	1922	1923
Wasserman Test for Syphilis ...	2037	1977	896	884	1141	1093
Smears and Urines for Gonococcus ...	1332	1385	265	295	1067	1090
Serum for Spironema Pallidum ...	242	215	91	55	151	160
Sputa for Tuberculosis, etc.—						
For Tuberculosis Physicians ...	1911	2099	375	408	1536	1691
County Cases ...	305	384	57	92	248	292
Concentration Methods ...	103	139	—	—	—	—
Mixed Infections ...	167	112	—	—	—	—
Throat Swabs for Diphtheria ...	2561	2874	135	151	2426	2723
Widals ...	53	127	10	20	43	107
Hairs for Ringworm ...	105	129	45	63	60	66
Blood Films and Counts ...	52	57	—	—	—	—
Autopsies ...	1	9	—	—	—	—
Tissues for Section ...	159	161	—	—	—	—
Urines for Chemical Examination ...	229	335	—	—	—	—
Pus ...	66	109	—	—	—	—
Effusions ...	15	19	—	—	—	—
Vaccines ...	61	131	—	—	—	—
Waters ...	41	47	—	—	—	—
Milks ...	139	210	—	—	—	—
Miscellaneous ...	277	412	—	—	—	—
Total ...	9856	10931	—	—	—	—

The County Pathologist reports that:—

The total number of specimens examined at the County Laboratory during the year 1923 shows an increase of 1,075 as compared with the year 1922, and this increase, with one or two exceptions, is evenly distributed over all classes of specimens.

The Venereal group of specimens shows a welcome decrease in the number of exudates from sores yielding a positive result for the Spironema Pallidum. For the years 1921, 1922 and 1923 the figures are respectively 140, 91 and 55. Of these specimens 13 belonged to the secondary stage, while the rest were primary lesions. In about half of the latter, the place of infection was ascertained, and 50% proved to be hexogenous to the County and County Borough. This information could not be obtained in the remainder for various reasons, such as (1) the fact that some of the patients were women, and obviously could not be questioned as closely as men; (2) some were patients of private practitioners; while (3) some were foreigners, ignorant of the language, and possessed of but a very hazy appreciation of what was required of them.

The Gonorrhœal specimens, on the other hand, show a tendency towards an increase not only as regards the total number of examinations, but also the number of positives. This may in part be accounted for by the activities of the Special Health Visitor detailed off for this work, who is getting more and more successful in bringing down to the Clinic female patients who otherwise might be inclined to stay away.

It is difficult to form an accurate estimate of the incidence of Pulmonary Tuberculosis from a consideration of Laboratory specimens, but the figures appear to indicate a definite increase in the number of cases. The number of sputa examined from all sources during the three years 1921, 1922 and 1923 are respectively 2,016, 2,216 and 2,483, while the figures for the positive results are respectively 414, 432 and 500, so that comparing 1923 with 1921, there has been an increase of 20% in the cases of "open" Pulmonary Tuberculosis. This may partly be accounted for by the fact that medical practitioners are taking advantage of the facilities afforded by the County Laboratory more and more, but it cannot be the sole explanation.

The incidence of Diphtheria has been to all intents and purposes the same as in 1922, the number of notifications totalling 369, as against 397. The number of "Positive" swabs still falls far short of that of the notifications.

MILK.—The milk examinations which were begun during the year 1922 were continued in 1923, the object of the investigation being not so much to determine the quality of the milk in regard to its chemical composition—a line of work which properly belongs to the County Analyst's Department, and which is dealt with under the Sale of Food and Drugs Act—but to ascertain by bacteriological methods the degree of cleanliness and wholesomeness of the milk at the time of its being sold to the consumer.

The examinations undertaken in the case of each sample have been:—

1. The enumeration of the total number of bacteria.
2. The estimation of the B.Coli content.
3. The microscopical examination of the centrifugalized deposit for the detection of starch granules, gross particles of dirt, pus, blood, etc.
4. The microscopical examination of the cream and centrifugalized deposit for Tubercle bacilli.
5. Cultural examination for Diphtheria, Typhoid, Paratyphoid, and Dysentery bacilli.
6. Guinea pig inoculations for the detection of B. Tuberculosis.
7. In addition, the common antiseptics were always tested for qualitatively, as naturally the presence of any of these bodies would have had an influence on the bacterioscopic picture. These were never found.



Of the 210 samples of milk examined at the County Laboratory 191 belong to this research, and from the results obtained they can be classified as follows:--

1. Those which conform to the standard laid down by the Ministry of Health for " Certified Milks "	32
2. Those which conform to the standard laid down for " Grade A " milks	71
3. Those which conform to the standard laid down for " Grade A " milk as regards the total number of bacteria, but contain B.Coli in 1/100cc though not in less (This group would constitute borderline cases.)	3
4. Those which are unsatisfactory in that they possessed a high bacterial content (this in several cases numbering many millions), but are satisfactory in respect of their B.Coli content	34
5. Those which are unsatisfactory because of a high B.Coli content, though not containing more than 200,000 bacteria per c.c.	11
6. Those which are unsatisfactory on account of the high bacterial content as well as a high B.Coli content	40

Therefore, of the 191 samples of mixed milks as retailed to the consumer 103, or 54%, were of a satisfactory standard of purity; 85, or 44.5% were frankly unsatisfactory: while 3, or 1.5%, formed a borderline group.

On comparing these results with those of the year 1922, we find that the percentage of satisfactory milks is higher (54 as against 36), but there is still plenty of room for improvement. I am of opinion that such an improvement will be brought about by more strictly controlling the sale of milk by means of periodical examinations and re-examinations. In fact, it is noticeable that when a new district is taken up the specimens collected at the start are for the most part indifferent in quality, but as time goes on they improve, and the conclusion that one naturally comes to is that the vendors, both producers and retailers, begin to exercise more care in the handling of the milk, knowing that their turn for examination may come next. Again, in cases where the results have been so bad that second examinations were deemed imperative after due warning had been given, considerable improvement was noted.

In no instance were the bacilli of Diphtheria, Typhoid, Paratyphoid, or Dysentery isolated, whilst with respect to the Bacillus Tuberculosis this was discovered on three occasions by means of the animal inoculation test. The farms implicated were visited by the County Sanitary Inspector, County Veterinary Inspector and the officials of the Local Authority, and the diseased animals in each instance identified, removed from the herd and dealt with satisfactorily.

Passing to the Group "Tissues for Section," it was found that of the 161 specimens submitted 52 were malignant growths, of which 18 were Cancers of the Breast, 12 Cancers of the Skin, Tongue, Tonsil and other structures covered with squamous epithelium, 9 Cancers of the Stomach, Intestine, Ovary, etc., 3 Cancers of the Vagina and Uterus, while 10 belonged to the group of Sarcomata.

This cannot be looked upon as an adequate indication of the incidence of Cancer, as there were probably cases where the diagnosis would be so evident that the operating surgeon would not consider it necessary to have the tumour examined microscopically; while again, the number of inoperable cases must have been very large. But one point emerges very clearly, and that is the great importance of Cancer of the Breast, which amounted to more than one-third of all the Cancer cases. Furthermore, whenever excised lymphatic glands were also submitted from malignant breast cases, they were invariably found to be invaded by the disease. It is urged by the Ministry of Health in the Memoranda which they are now issuing for the sake of educational propaganda that all lumps in the breast should, immediately on discovery, be looked upon by their possessors as suspicious, and measures taken to have the disease diagnosed speedily and suitable treatment prescribed. The above figures confirm this point of view.

At the beginning of October, 1923, owing to the occurrence amongst the inmates of the Lunatic Asylum at Abergavenny of several cases of diarrhoea with temperature, the cause of which was obscure, the Medical Superintendent, Dr Phillips, considered it advisable to carry out a complete investigation on bacteriological lines to ascertain, if possible, the reason for this. Accordingly various samples of blood, faeces and urine were examined at the County Laboratory. These were collected from the contacts, the nursing staff, and the kitchen staff, etc.

No evidence could be obtained pointing to the Typhoid or Paratyphoid Bacilli as being the infective agents. It is true that in six cases agglutination of the bacilli belonging to this group was obtained in low dilutions, but as the subjects had been inoculated a fortnight previously, or thereabouts, with a prophylactic T.A.B. vaccine, this agglutination was put down to the reaction that followed the injection. In any case, examinations of the excreta failed to reveal a carrier.

As regards the Dysentery Bacilli, three of the people examined gave a definite reaction to the Bacillus of Shiga, and there is no doubt that at some time or other they had been infected by this organism and were probably carriers. These three subjects were semi-isolated and removed from any duties connected with the cooking, preparation or distribution of food, and I am informed by the Medical Superintendent that since the beginning of this year the Institution has been singularly free from cases of diarrhoea.

Under the heading "Miscellaneous" are included specimens of:—

Cerebro-Spinal Fluids,  
Faeces,  
Secretions from eye,

Blood-Cultures,  
 Blood for Sugar Content,  
 Vomits and Gastric contents,  
 Cystic and other Fluids, etc.

Of the last-named, one specimen was from a patient infected with *Taenia Echinococcus* (Hydatid).

This group also includes experiments carried out on animals under 39 and 40 Vic. Cap. 77, Certificates A3 and B1, licence for which has been granted to me by the Home Secretary. The experiments included inoculations for the detection of B. Tuberculosis, the identification of the Kleb's Loeffler Bacillus, Pneumococcus, etc., and were reported to the Home Office on 31st December, 1923.

A paper was read by the County Pathologist before the Newport Medical Society on the "Modern Aspects of Diabetes Mellitus."

## DAIRIES, COWSHEDS AND MILKSHOPS.

These are periodically visited throughout the County, though in many cases only to see if the bi-annual limewashing has been carried out. More frequent inspections on the matter of sanitary conditions, with suggestions for improvements and practical advice upon details of cleanliness, cannot be too strongly urged upon the local Sanitary Authorities.

In a few districts energetic officers have secured great improvements, and in the St. Mellons Rural District 40 new floors were constructed and 11 more repaired during the year.

Some Councils are amending their Regulations under the Dairies, Cowsheds, and Milkshops Order, 1885, in order to make them comply with the suggested standard agreed upon at Conferences of the District Medical Officers and District Sanitary Inspectors held at Newport.

While this standard is by no means an unreasonable one, it is understood that it would entail considerable hardship to insist upon a general strict compliance with all the requirements at once, and it is suggested that the standard be looked upon as one to be attained by gradual progression, dealing with the more important defects first.

Three Licences have been issued by the County Council under the Milk (Special Designations) Order, 1923, in respect of "Grade A." Milk. These farms produce milk under the best conditions, and no falling away from the prevailing high level of proficiency will be countenanced. Frequent visits are paid, and, where necessary, samples are taken.

Local Councils will do well to keep in mind the powers over the retailer given to them by Section 2 of the Milk and Dairies (Amendment) Act, 1922, and there is now no reason why vendors should not in every way satisfy the Council's reasonable requirements as to cleanliness.

Power to deal with the tuberculous cow is an urgent need, and there is reason to believe that the widespread agitation will lead to the requisite legislation being passed in the near future.

## **FOOD INSPECTION, SLAUGHTERHOUSES AND BAKEHOUSES.**

The table giving the amounts of unsound foodstuffs condemned and destroyed in the various districts is attached, from which it will be seen that Bedwellty is again to the front.

It is to be regretted that nothing has yet been done to provide a system of food inspection in the market towns of Pontypool, Monmouth and Chepstow. The first-named town in particular urgently needs measures for combating the foisting of unsound foods upon the shopping public.

It is becoming increasingly necessary that one Sanitary Inspector at least in each Urban area should also be a qualified Inspector of Meat and Other Foods, and Councils affording facilities and assistance to this end will render a commendable service to the health of the community.



**Table showing the amounts of Unsound Food condemned in the various Urban Districts:**

DISTRICT.	Fish.	Meat.	Bottled and Tinned Foods, including Corned Beef, Milk, Fish, and Fruit.	Bacon.	Offal, etc.	Cooked Meat.	Fruit.	Mis-cellaneous (Vegetables chiefly).
bercarn ...	...	170 lbs.	103 lbs.	...	...	...	...	...
bergavenny ...	30 $\frac{1}{2}$ boxes	1 Carcase and 55 lbs.	20 tins.	...	...	1 ham.	...	...
bersychan ...	...	...	345 tins.	56 lbs.	...	...	...	30 lbs.
bertillery ...	...	1390 lbs.	124 tins. 6 jars.	...	50 lbs.	30 lbs.	...	1 ton. 60 lbs.
edwas and Machen ...	...	174 lbs.	77 tins.	...	...	...	...	...
edwellty ...	328 lbs.	2364 lbs.	1163 tins. 295 bottles etc.	272 lbs.	...	491 lbs.	15 lbs.	1200 lbs.
laenavon ...	434 lbs.	...	87 tins.	...	...	...	560 lbs.	...
erleon ...	...	...	...	...	...	...	...	...
hepstow ...	...	...	...	...	...	...	...	...
bbw Vale ...	...	2353 lbs.	33 tins.	...	...	...	...	3 tons.
lanfrechfa ...	...	...	...	...	...	...	...	...
Upper ...	...	...	...	...	...	...	...	...
lantarnam ...	...	...	...	...	...	...	...	...
onmouth ...	...	...	...	...	...	...	...	...
ynyddislwyn ...	...	3381 lbs.	85 tins.	...	...	...	...	...
antyglo and Blaina ...	...	324 lbs.	...	...	...	...	...	...
anteg ...	11 lbs.	53 lbs.	170 tins. 16 pots. 252 packets.	32 lbs.	...	...	22 lbs.	533 lbs.
ontypool ...	...	...	...	...	...	...	...	...
hymney ...	...	...	152 tins.	...	...	...	...	4 $\frac{1}{2}$ cases, eggs.
isca ...	...	550 lbs.	204 tins.	...	80 lbs.	...	...	...
redegar ...	...	1030 lbs.	...	...	...	36 lbs.	262 lbs.	60 rabbits
sk ...	...	...	...	...	...	...	...	...

Slaughterhouses are periodically inspected in all districts. It is pleasing to find no less than six Medical Officers of Health pressing for the provision of Public Abattoirs in their districts. Such premises with modern sanitation and with all slaughtering conducted under the direct supervision of the Council's officials, are unquestionably the only practical remedy for the present unsatisfactory conditions.

There is still far too much slaughtering on unlicensed premises, and this will not be checked until proceedings are instituted against the offenders. Warnings have little or no effect, and in many instances such malpractices are openly boasted.

Bakehouses are kept under continual supervision, and no serious defects have been reported during the year under review.

# RAINFALL.

Appended is a table giving the comparative rainfalls between various localities in the County during the year under review, and also for a series of past years.

Name of place at which records were taken.	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Abergavenny	29'92	33'01	35'34	29'42	29'71	50'28	35'94	51'39	45'56	47'03	43'42	37'92	33'35	37'28	31'04	47'87	23'79	33'19	40'37
Abersychan, Glansychan House	43'81	46'09	55'20	44'90	49'98	66'41	49'92	69'00	63'82	69'95	57'6	63'85	52'38	56'93	51'84	69'10	38'98	56'47	63'37
Abertillery	...	51'19	63'4	53'21	60'89	79'65	66'92	84'64	66'71	72'26	56'73	63'24	52'91	58'79	49'1	71'24	40'99	52'47	55'75
Chepstow, The Cedars	21'44	31'94	33'61	28'82	35'29	36'46	31'82	49'98	34'80	40'92	35'81	46'07	32'81	36'9	37'54	42'12	23'55	37'85	35'85
Cwmcam (Maesderwen)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	47'4	64'15	33'91	49'16	51'83
Ebbw Vale	51'63	48'10	58'50	52'20	61'68	76'21	63'26	73'94	66'74	71'65	59'54	63'10	50'02	61'69	48'84	75'21	43'11	54'51	53'17
Henllys, Pantyrcos Reservoir	39'80	50'31	53'61	45'94	54'84	59'04	52'92	70'68	60'05	62'41	52'62	59'85	46'59	59'74	50'02	63'93	37'57	55'64	58'26
Little Mill, nr. Ponty-pool	30'24	33'67	42'59	36'42	38'35	55'81	42'20	57'66	44'25	46'29	42'88	54'79	39'23	40'06	44'9	46'26	25'94	27'42	50'21
Newbridge, Troedy-rhiw Fawr	42'15	46'95	51'26	40'53	45'39	64'06	45'65	64'42	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken
Pontypool, Maesderwen House, Pontymoile	41'30	43'55	52'17	41'53	49'77	64'97	48'25	71'75	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken	Not taken
Pontypool, Snatchwood Park	45'40	46'56	57'06	44'62	50'56	65'99	52'29	69'20	64'01	62'07	57'59	61'64	51'33	56'68	51'84	69'10	37'57	57'83	63'42
Tredegar, Redesdale House	50'90	53'37	...	50'14	...	69'64	60'12	74'47	61'09	61'51	51'4	...	41'95	50'44	40'8	51'70	27'49	45'82	60'73
Wentwood, Newchurch	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gathering Ground	36'37	38'49	42'82	35'80	40'94	48'35	39'55	56'17	45'43	48'64	42'37	47'38	40'07	47'6	43'26	49'85	29'33	47'22	45'04
Wentwood Reservoir	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Llanvaches	...	35'42	36'84	31'57	37'31	41'59	34'73	48'96	39'17	42'32	37'55	44'50	37'22	43'67	41'14	46'13	25'71	42'52	41'88

A new gauge at Pantyrcos Reservoir recorded 45'04 inches.

# VITAL STATISTICS FOR THE YEAR 1923.

DISTRICT	ESTIMATED POPULATION.	BIRTHS								DEATHS				INFANTILE MORTALITY.				Zymotic Death-rate per 1000 of estimated population.	Tubercular Death-rate per 1000 of estimated population (including phthisis and other Tubercular diseases)	Respiratory diseases Death-rate per 1000 of estimated population.	Medical Officer of Health
		LEGITIMATE		ILLEGITIMATE		TOTAL		GRAND TOTAL	Rate per 1000 of population	Male	Female	Total	Rate per 1000 of population	TOTAL DEATHS UNDER ONE YEAR							
		Male	Female	Male	Female	Male	Female							Legitimate.	Illegitimate	Total.	Rate per 1000 births.				
URBAN.																					
Abercarn ...	20990	268	233	11	3	279	236	515	24.5	124	92	216	10.3	35	...	35	68.0	1.0	.57	1.57	E. M. Griffith, M.D., C.M., Abercarn
Abergavenny ...	9090	77	78	7	4	84	82	166	18.3	47	54	101	11.1	4	...	4	30.1	.11	1.98	1.1	W. D. Steel, M.D., D.P.H., Abergavenny
Abersychan ...	28410	329	309	5	13	334	322	656	23.1	143	117	260	9.2	45	2	47	71.6	.74	.49	1.41	R. J. S. Verity, L.S.A., L.M.S.S.A., Garndiffaith
Abertillery ...	39960	463	451	17	10	480	461	941	23.5	178	156	334	8.4	65	5	70	74.4	1.15	.68	1.28	T. Baillie Smith, M.B., Ch.B., D.P.H., Abertillery
Bedwas and Machen ...	9060	133	125	4	5	137	130	267	29.5	64	63	127	14.0	26	...	26	97.4	1.43	1.21	2.43	B. O. Barnard, M.B., C.M., Machen
Bedwellty ...	32790	469	508	15	13	484	521	1005	30.6	189	172	361	11.0	73	5	78	77.6	1.40	.76	2.04	D. Rees Roberts, M.B., New Tredegar
Blaenavon ...	12960	142	124	2	2	144	126	270	20.8	82	87	169	13.0	28	2	30	111.1	.69	.62	2.24	G. H. Martin, M.B., B.Ch., B.A.O., Blaenavon
Caerleon ...	2307	22	10	3	1	25	11	36	15.6	11	18	29	12.6	1	1	2	55.5	...	...	3.9	E. A. I. Phillips, M.R.C.S., L.R.C.P., Caerleon
Chepstow ...	5073	49	50	2	3	51	53	104	20.5	32	21	53	10.4	6	...	6	57.7	.39	.79	.79	T. L. Drapes, M.R.C.S., L.R.C.P., B.A., Chepstow
Ebbw Vale ...	36830	410	404	13	16	423	420	843	22.9	209	165	374	10.2	68	2	70	83.0	.79	1.14	1.55	F. M. Fonseca, F.R.C.S., D.P.H., Ebbw Vale
Llanfrechfa Upper ...	4876	63	52	1	1	64	53	117	24.0	27	19	46	9.4	7	1	8	68.4	1.03	.62	1.85	W. E. C. Murphy, M.B., B.Ch., Cwmbran
Llantarnam ...	7724	85	85	1	6	86	91	177	22.9	47	47	94	12.2	13	...	13	73.4	1.29	1.04	2.07	Ditto ditto
Monmouth ...	5110	54	48	3	1	57	49	106	20.7	42	28	70	13.7	8	...	8	75.5	...	1.17	1.17	W. H. Williams, M.R.C.S., L.R.C.P., B.A., Monmouth
Mynyddislwyn ...	15530	227	191	4	5	231	196	427	27.5	76	65	141	9.1	35	...	35	82.0	.77	.9	1.87	R. E. Roberts, M.B., Cwmfelinfach
Nantyglo and Blaina ...	16990	160	182	6	2	166	184	350	20.6	96	67	163	9.6	29	4	33	94.3	.65	.77	1.94	T. W. Bevan, M.R.C.S., L.R.C.P., Nantyglo
Panteg ...	11360	109	118	7	1	116	119	235	20.9	64	61	125	11.0	13	...	13	54.9	.18	.79	1.85	T. J. McAllen, M.B., B.Ch., Pontypool
Pontypool ...	7280	94	82	1	4	95	86	181	24.9	53	36	89	12.2	12	...	12	66.3	1.10	.96	2.88	Do. do.
Rhymney ...	12230	167	144	6	6	173	150	323	26.4	66	78	144	11.8	30	1	31	96.0	2.70	.98	1.88	R. V. de A. Redwood, F.R.C.S., L.R.C.P., Rhymney
Risca ...	17540	217	182	3	3	220	185	405	23.1	75	52	127	7.2	19	..	19	46.9	.40	.46	.74	N. N. Wade, M.B., Ch.B., Risca
Tredegart ...	26230	345	310	11	9	356	319	675	25.7	152	130	282	10.8	45	3	48	71.1	.95	.88	1.52	E. T. H. Davies, M.D., M.S., F.R.C.S., Tredegar
Usk ...	1460	13	13	2	...	15	13	28	19.2	6	3	9	6.2	2	...	2	71.4	...	...	.68	E. L. M. Hackett, L.R.C.P., L.R.C.S., Usk
RURAL.																					
Abergavenny ...	9302	94	60	4	3	98	63	161	17.3	64	51	115	12.4	9	1	10	62.1	.43	1.4	1.29	E. Y. Steele, L.R.C.P., Abergavenny
Chepstow ...	8804	77	85	3	6	80	91	171	19.4	55	45	100	11.4	8	...	8	46.8	.23	1.02	1.25	T. L. Drapes, M.R.C.S., L.R.C.P., B.A., Chepstow
Magor ...	5560	44	61	2	3	46	64	110	19.8	35	34	69	12.4	6	...	6	54.5	.54	.72	1.8	E. A. I. Phillips, M.R.C.S., L.R.C.P., Caerleon
Monmouth ...	6564	62	61	5	5	67	66	133	20.3	53	37	90	13.7	4	...	4	30.1	.46	1.37	1.22	W. H. Williams, M.R.C.S., L.R.C.P., B.A., Monmouth
Pontypool ...	5310	40	58	2	1	42	59	101	19.0	31	30	61	11.5	7	...	7	69.3	.19	1.69	.75	E. L. M. Hackett, L.R.C.P., L.R.C.S., Usk
St. Mellons ...	11760	99	127	4	4	103	131	234	19.9	62	49	111	9.4	13	...	13	55.5	.26	.94	.77	N. N. Wade, M.B., Ch.B., Risca
Grand Totals, 1923 ...	371100	4312	4151	144	130	4456	4281	8737	23.5	2083	1777	3860	10.4	611	27	638	73.0	.85	.86	1.58	
Totals for Year 1922 ...	369205	4235	4267	164	139	4399	4406	8805	23.8	2256	1982	4238	11.4	690	45	735	83.4	.46	.87	2.38	

